HITACHI

PA

No. 0050

27CX6B/C756
27CX5B/C755
27CX25B/C750
20SA3B/C053

# SERVICE MANUAL

NTSC

M3LXU/M3XU CHASSIS

R/C: CLU-415UI
CLU-414UI
CLU-412U

**CAUTION:** Before servicing this chassis, it is important that the service technician read the "Safety Precautions" and "Product Safety Notices" in this Service Manual.

This television receiver will display television Closed Captioning ( CC or ☐ ) in accordance with paragraph 15.119 of the FCC rules.

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20SA3B / C053 (M3XU)

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**SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT**

# SOLID STATE COLOR TELEVISION

SEPTEMBER 1995

HHEA - MANUFACTURING DIVISION

## SAFETY PRECAUTIONS

**NOTICE:** Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.

**WARNING:** Since the chassis of this receiver is connected to one side of the AC power supply during operation, whenever the receiver is plugged in, service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

The following precautions should be observed:

1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away from the picture tube while handling.
2. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a "HOT" chassis receiver.
3. When replacing a chassis in the receiver, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistors, capacitors, etc.
4. When service is required, observe the original lead dress in the high voltage circuitry area.
5. Always use the manufacturer's replacement components. Critical components as indicated on the circuit diagram should not be replaced by another manufacturer's. Furthermore, where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

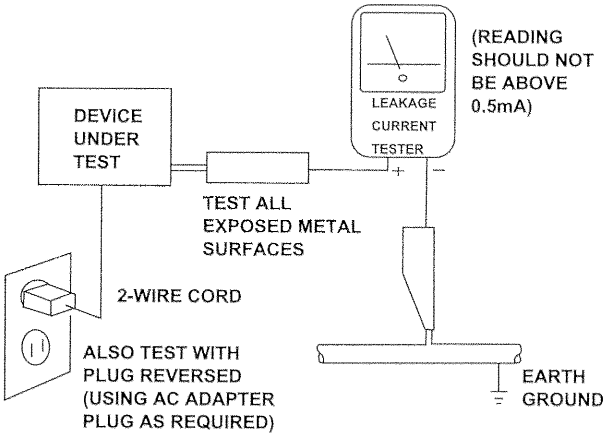
Therefore, the following checks should be performed for the continued protection of the customer and service technician.

### Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch ON using an insulation tester (DC500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a minimum resistor reading of 0.24MΩ and a maximum resistor reading of 5.2MΩ . Any resistance value below or above this range indicates an abnormality which requires corrective action. Exposed metal part not having a return path to the chassis will indicate an open circuit.

### Leakage Current Hot Check

Plug the AC line cord directly into an AC 120V 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power ON. Using a "leakage Current Tester (Simpson's Model 229 or equivalent)", measure for current from all exposed metal parts of the cabinet (antennas, screwheads, overlays, control shafts, etc.) particularly any exposed metal part having a return path to the chassis or to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



## AC LEAKAGE TEST

**ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE RECEIVER TO THE CUSTOMER.**

### High Voltage

This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit is operated correctly.

### Serviceman Warning

With minimum BRIGHTNESS and CONTRAST, the operating high voltage in this receiver is lower than 34.0kV. In case any component having influence on the high voltage is replaced, confirm that high voltage with minimum BRIGHTNESS and CONTRAST is lower than 34.0kV. To measure high voltage use a high impedance High Voltage Meter. Connect (-) to chassis earth and (+) to the CPT Anode button (See the following connection diagram).

**NOTE:** Turn the power switch OFF without fail before the connection to the Anode button is made.

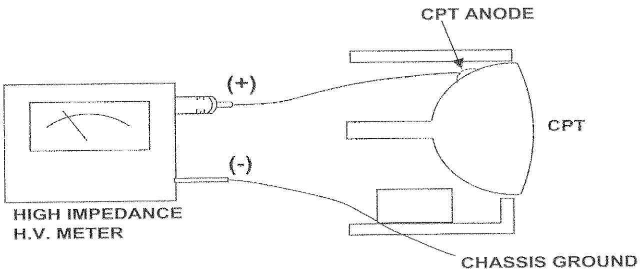
## PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receivers have special safety related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacements parts which have these special safety characteristics are identified in this Model Service Manual.

Electrical components having such features are identified with an ⚠ mark in the schematics and parts list in this Model Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI recommended replacement one, shown in the parts list in this Model Service Manual, may create shock, fire, X-Radiation, or other hazards.

Production Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of HITACHI Service Manual may be obtained at a nominal charge from HITACHI SALES CORPORATION.



### X-Radiation

**TUBE:** The primary source of X-Radiation in this receiver is the picture tube. The tube utilized in this chassis is specially constructed to limit X-Radiation emission. For continued X-Radiation protection, the replacement tube must be the same type as the original HITACHI approved type.

When troubleshooting and making test measurements in a receiver with an excessive high voltage problem, avoid coming unnecessarily close to the picture tube and the high voltage component.

Do not operate the chassis longer than is necessary to locate the cause of the excessive voltage.

This Service Manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the product and its safety. Consumers should not risk trying to do the necessary repairs and should instead refer to a qualified service technician.

### WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm
(California Health and Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components with lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

## SAFETY NOTICE
## USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by ⚠ on the parts list in this Model Service Manual and its supplements and bulletins. Before servicing this, it is important that the service technician read and follow the "Safety Precautions" and the "Product Safety Notices" in this Service Manual.

For continued X-Radiation protection, replace picture tube with original type or Hitachi equivalent type.

## POWER SOURCE

This television receiver is designed to operate on 120 Volts/60Hz, AC house current. Insert the power cord into a 120 Volts/60Hz outlet.

**NEVER CONNECT THE TV TO OTHER THAN THE SPECIFIED VOLTAGE OR TO DIRECT CURRENT.**

# TECHNICAL SPECIFICATIONS

## POWER RATINGS

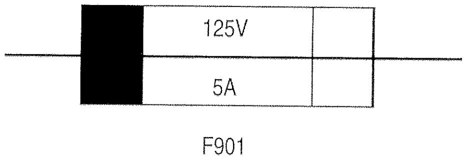
| | |
|---|---|
| 27CX6B/C756 | 145 watts |
| 27CX5B/C755 | 145 watts |
| 27CX25B/C750 | 145 watts |
| 20SA3B/C053 | 108 watts |

## COLOR PICTURE TUBE

| | |
|---|---|
| 27CX6B/C756 | A68KRQ58X(D) |
| 27CX5B/C755 | A68ADT25X02 |
| 27CX25B/C750 | A68ADT25X02 |
| 20SA3B/C053 | A51KQN61X |

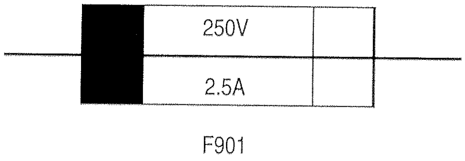
**CAUTION**
The following symbol near the fuse indicates fast operating fuse (to be replaced). Fuse ratings appear within the symbol.
Example:

27V Model



The rating of fuse F901 is 5.0A-125V.
Replace with the same type fuse for continued protection against fire.

20V Model



The rating of fuse F901 is 2.5A-250V.
Replace with the same type fuse for continued protection against fire.

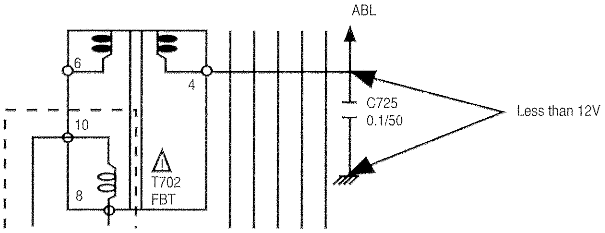
# TECHNICAL CAUTIONS

## 27CX5B, 27CX6B, 27CX25B

### High voltage limiter circuit check and overvoltage protection circuit operation check.

**Adjustment Preparation**

1. Connect a high voltage voltmeter between CPT anode terminal (anode capside) and the ground.
2. Set AC Input voltage to 120±3V.
3. Receive Circle Pattern and set "BRIGHTNESS" and "CONTRAST" to maximum. Adjust the Screen VR so that Beam Current is 1B±0. 1 mA. (The voltage of ABL terminal -C725 both ends should be 12V or less)
4. Connect R831 (Q804 collector side) to GND.


ABL
6
4
10
8
C725
0.1/50
T702
FBT
Less than 12V

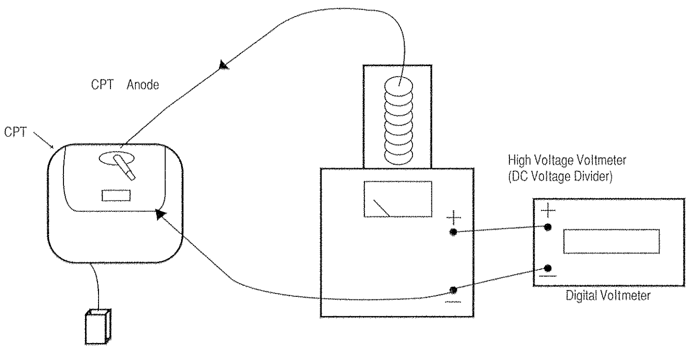
**Adjustment Procedure**

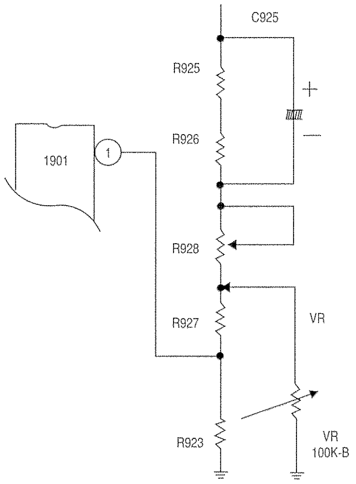
1. Check that the normal high voltage and +B voltage.

| CHASSIS | $E_{HT} \pm 1$ KV | I B± 0.1mA | +B ± 0.3V | E1 ± 1.2 KV |
|---|---|---|---|---|
| C755/C756 | 27.5 KV | 1.5 mA | 96.0 V | 32.5 KV |
| C750 | 27.5 KV | 1.5 mA | 96.0 V | 32.5 KV |

**Adjustment Preparation**

5. Set AC input voltage to 120±3V. Then, connect the VR (100K-B) to R925 and ground side as shown below.
   **Note:** At that time the value of VR should be maximum.


CPT Anode
CPT
High Voltage Voltmeter
(DC Voltage Divider)
+
−
Digital Voltmeter


C925
R925
+
−
1901
1
R926
R928
R927
VR
R923
VR
100K-B

**Adjustment Procedure**

2. Keep CONTRAST, BRIGHTNESS, and SCREEN VR as in item (3). Reduce the VR value gradually, and check that the picture disappears when high voltage is E1. Immediately after checking that it disappears, turn off the set switch. Remove the VR and high voltage voltmeter. When connecting or removing high voltage voltmeter to or from anode cap, be sure to turn off the CTV. Also, be sure to perform it after the chassis discharge of residual high voltage, because the high voltage of CPT anode may be left.

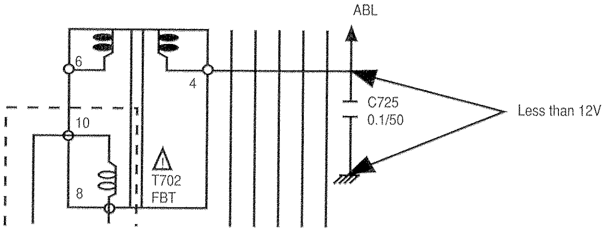
# TECHNICAL CAUTIONS

## 20SA3B ONLY

### High voltage limiter circuit operation check and overvoltage protection circuit operation check

**Adjustment Preparation**

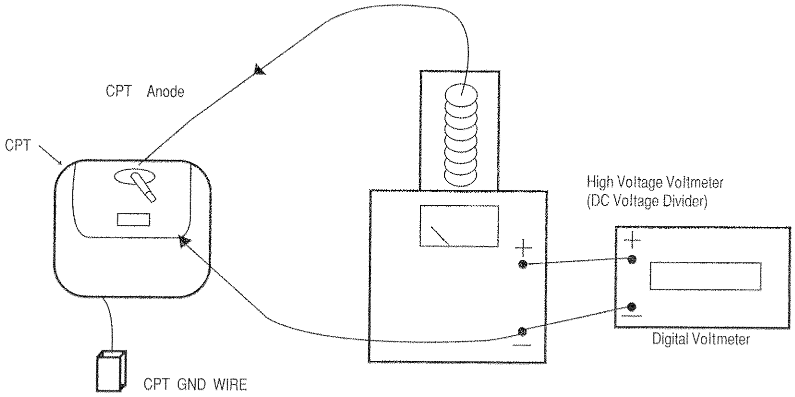
1. Connect a high voltage voltmeter between CPT anode terminal (anode capside) and the ground.
2. Set AC input voltage to 120±3V.
3. Receive Circle Pattern and set "BRIGHTNESS" and "CONTRAST" to maximum. Adjust SCREEN VR so that Beam Current is IB±0. 1 mA. (The voltage of ABL terminal -C725 both ends should be 12V or less)



**Adjustment Procedure**

1. Check that the normal high voltage EHT.

| CHASSIS | EHT ± 1KV | IB ± 0.1mA | E1 ± 1.2 KV |
|---|---|---|---|
| C053 | 27.0 KV | 1.1 mA | 30.5 KV |



**Adjustment Preparation**

4. Turn the power ON and receive circle pattern signal. Set CONTRAST and BRIGHTNESS to maximum and the others to the normal (RESET) condition.
5. Turn the power OFF and short circuit both ends of R906 with a jumper wire.
6. Adjust the slidac so that the input power voltage of the TV set is 100±5V.
7. Turn the power ON and increase the input power voltage gradually while adjusting the slidac. Check the indicated value with a high voltage voltmeter and see picture condition.
8. While continuing the above operation, read the operating voltage of X-ray protection circuit E1.
9. When X-ray protection circuit operates, set the input power voltage to zero using the slidac and remove the jumper wire and the high voltage voltmeter.

## ADJUSTMENT SPECIFICATIONS

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Refer to CHASSIS SERVICE MANUAL PA NO. 0051 for additional technical information.

**Note:**

1. MAIN CHASSIS ADJUSTMENT is done with precision equipment. Readjustment is only recommended if the service technician replaced a defective component related to the circuit.
2. COMMON SERVICE ADJUSTMENT is recommended for the service technician after final troubleshooting and repair is done. Quick check and fine tuning is advisable to verify that the problem is eliminated.

## I. MAIN CHASSIS ADJUSTMENT

### 1. I²C BUS SYSTEM

M3LXU (M3XU) Chassis uses I²C Bus Control System. Fig. 1 shows this control system.

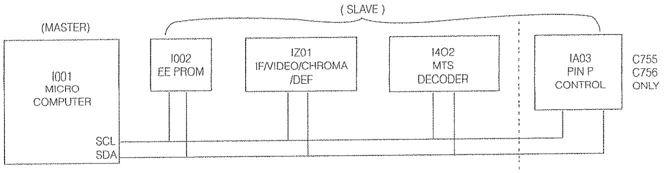


FIG. 1

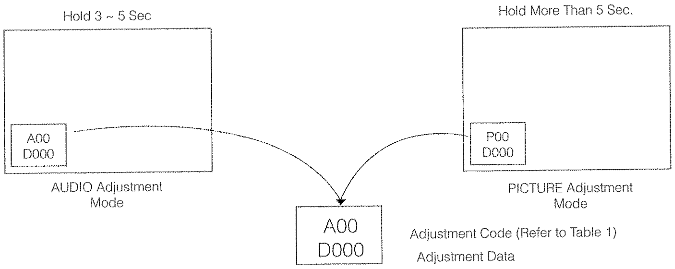
I001 (Master) controls other ICs (slave). Adjustment data is memorized in I002 (EEPROM). I001 read this data and controls other ICs.

Adjustment items applied in this chassis is shown in Table 1.

### 2. ADJUSTMENT PROCEDURE–START UP

#### 2-1 How to Get to Adjustment Mode

Chassis adjustment can be done using customers remo-con with CTV set turned off, press "POWER" and "MENU" or "AVX" keys at the same time, and hold more than 3 seconds. The CTV set turns on in adjustment mode with OSD as follows.



"To Escape from Adjustment Mode"
Press "POWER" key or "POWER" button of remo-con once at any time.Then set returns to normal state.

**TABLE 1 ADJUSTMENT CODE**

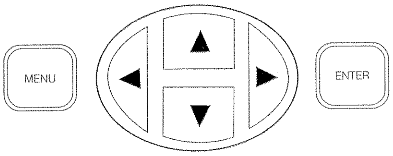
| CODE NAME | ADJUSTMENT MODE | (ITEM) REMARK | SERVICE* MODE DATA |
|---|---|---|---|
| A 00 | Audio Adj. Key Code | — | — |
| A 01 | STEREO VCO Adj. | 4.3 | 027 |
| A 02 | SAP VCO Adj. | 4.6 | 030 |
| A 03 | Filter Adj. | 4.4 | 026 |
| A 04 | Input Level Adj. | 4.2 | 009 |
| A 05 | Separation (Low) Adj. | 4.5 | 032 |
| A 06 | Separation (High) Adj. | 4.5 | 022 |
| P 00 | Picture Adj. Key Code | — | — |
| P 01 | PIF VCO Adj. | 4.1 | 063 |
| P 02 | RF AGC Adj. | 4.11 | 044 |
| P 03 | Horiz. (Phase) Position Adj. | 4.8 | 019 |
| P 04 | Vert. (Center) Position Adj. | 4.8 | 001 |
| P 05 | Vertical Size Adj. | 4.8 | 030 |
| P 06 | R-BKG Cut Off Adj. | 4.7–4.9 | 157 |
| P 07 | G-BKG Cut Off Adj. | 4.7–4.9 | 179 |
| P 08 | B-BKG Cut Off Adj. | 4.7–4.9 | 132 |
| P 09 | G-DRV Gain Adj. | 4.9 | 094 |
| P 10 | B-DRV Gain Adj. | 4.9 | 100 |
| P 11 | Sub Bright Adj. | 4.10 | 000 |
| P 12 | Sub Color Adj. | — | 000 |
| P 13 | Sub Tint Adj. | 4.12 | -010 |
| P 14 | Sub Sharpness Adj. | 4.13 | 004 |

* This data is an approximate service mode data. Fine adjustment must be done using the specified test procedure and adjustment tools.

#### 2-2 Changing Data and Adjustment Code

When set is in adjustment mode, the cursor "◀, ▶, ▲,▼" and 'ENTER" keys of the customers remo-con will be the adjustment keys.

A. By customer remote control



"▲,▼" keys are used for changing adjustment code.
"◀, ▶" keys are used for changing data.
"ENTER" key is used for changing "Cut Off Mode÷ Normal Mode".
(Refer to cut off adjustment)

### 3. ADJUSTMENT MODE

If below display appears

A00 D000    P00 D000

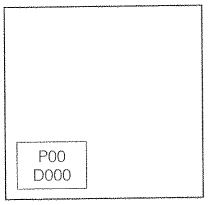
Adjustment code can not be changed by cursor "▲,▼" keys.

A00 D020    P00 D030

Set data "D020" at "A00" or "D030" at "P00" by "◀, ▶" keys.
Then adjustment code can be changed by "▲,▼" keys.

B. By Front Control Panel—Another Method

1. Before turning ON the set, press AVX. Then press POWER and keep pressing AVX for about 3 seconds.
2. After 3 seconds, a small square will appear on the left lower corner and there are two different displays. One shows A and D, and the other P and D for the picture adjustment.



D = Data value
P = Picture
A = Audio

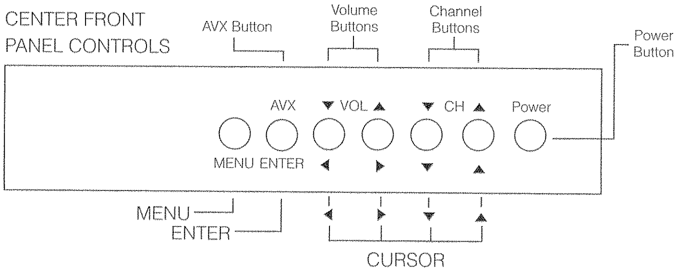
P00 D000

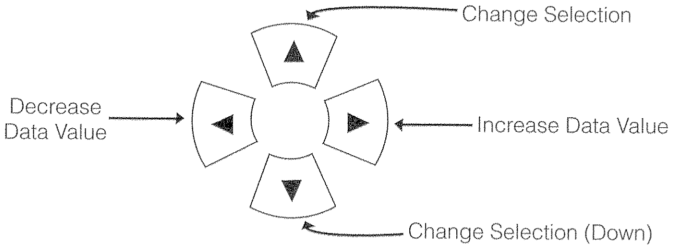
A00 D000

3. Since this adjustment is by control panel, the P and D has a value of zero. For the adjustment mode, first you have to input a data value of 30 and then you can select the other P options.

The same for the other adjustment of A and D for this adjustment you need an input value of 20 so you can select other options for A.

4. To make selection you have to use the arrow keys on the front control panel.


CENTER FRONT
PANEL CONTROLS
AVX Button
Volume Buttons
Channel Buttons
Power Button
AVX
▼ VOL ▲
▼ CH ▲
Power
MENU ENTER
MENU
ENTER
CURSOR


Change Selection
Decrease Data Value
Increase Data Value
Change Selection (Down)

Match front panel control cursor to remote control cursor.

## 4. ADJUSTMENT PROCEDURE

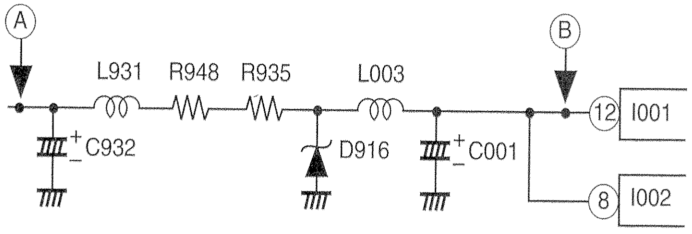
### 4-1 IF Adjustment

#### 4-1-1 PIF AFC Adjustment

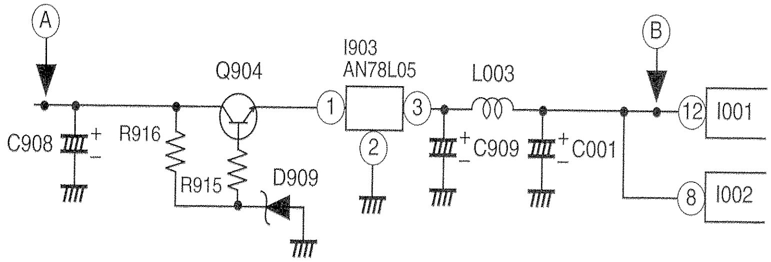
**Adjustment Preparation**

(1) Initial setting of EEPROM (I002)
Add +15V to point A and after 5 seconds check point B if it is 5V±0.3V.

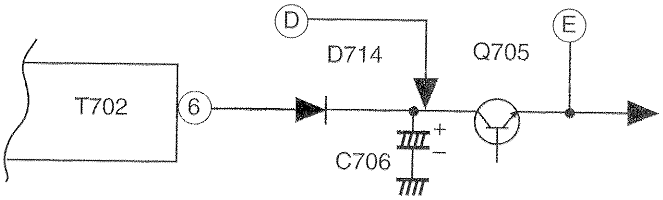
a. M3LXU Chassis


A
B
L931
R948
R935
L003
C932
D916
C001
12
I001
8
I002

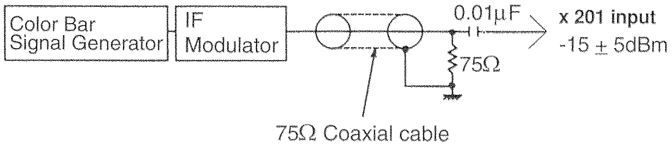
b. M3XU Chassis

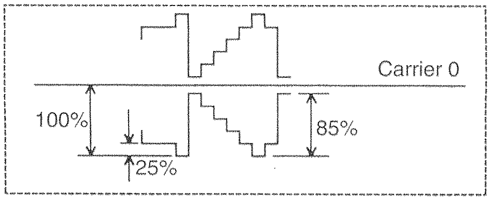

A
B
Q904
I903
AN78L05
L003
1
2
3
C908
R916
R915
D909
C909
C001
12
I001
8
I002

(2) Add +11V at Ⓓ point and check Ⓔ point is 9V±0.3.


D
E
D714
Q705
T702
6
C706

(3) Input signal between X201 input and earth.
(Tuner IF output)


Color Bar Signal Generator
IF Modulator
0.01μF
x 201 input
-15 ± 5dBm
75Ω
75Ω Coaxial cable


Carrier 0
100%
85%
25%

(4) Connect DC voltmeter (input impedance IM ohm or more) to I201 pin ㊹.

**Adjustment Procedure**

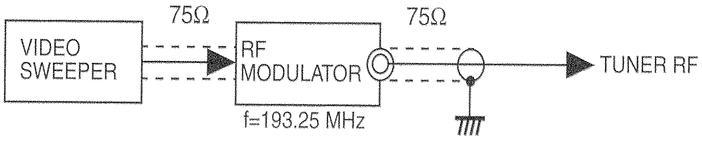
(1) Set adjustment code "P01".
Change data so that the voltmeter is 2.5±0.5V at I201 pin ㊹.

#### 4-1-2 Adjustment of IF waveform

**Adjustment Preparation**

(1) Connect signal as follows

(2) Connect an oscilloscope to I201 Pin㊼ (TP-12)

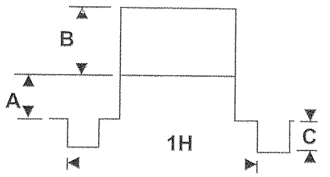

75Ω
75Ω
VIDEO SWEEPER
RF MODULATOR
f=193.25 MHz
TUNER RF

Marks
0.2 MHz (10CH)
1 MHz
2 MHz
3.6 MHz

Output level 91±3 dBμ (50Ω load)
Modulation 90 ~70%

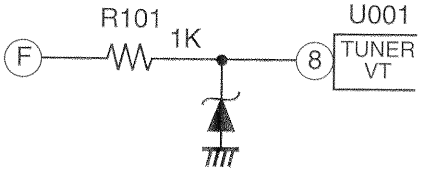
Check the signal at TP-12 as follows

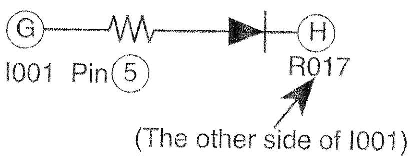
(3) Add the following voltage.



**A:** Set up level
**B:** Sweep signal level
**C:** Sync. level

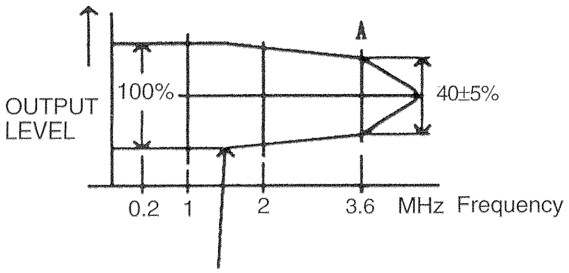
a. Same as 4-1-1 (1).
b. Same as 4-1-1 (2).
c. Tuner VTi Ⓕ POINT: 42V
d. Connect a diode (IS2076, ISS270TA) to Ⓖ~Ⓗ
e. Receive a color bar signal.


R101
1K
U001
F
8
TUNER VT
D102


1K
G
H
I001 Pin 5
R017
(The other side of I001)

**Adjustment Procedure**

(1) Adjust tuner IFT coil so that the output level of 0.2MHz is reference level (100%) and 3.6MHz level is 40±5%. (At that time, do not turn tuner IFT coil more than 1 turn.)



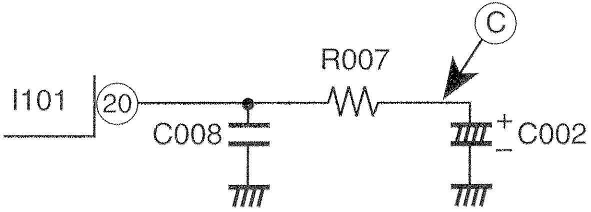
Check that 1MHz~2MHz level is 70%~100%

### 4-1-3 VCO for OSD adjustment

**Adjustment Preparation**

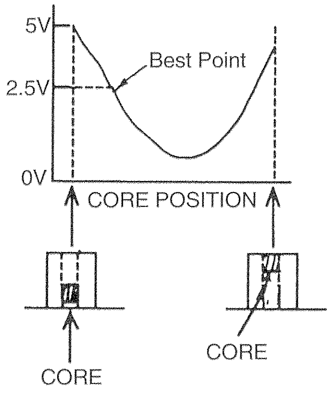
(1) Receive color bar or circle pattern signal.

(2) Connect a DC voltmeter to Ⓒ point.


C
R007
I101
20
C008
C002
+
−

**Adjustment Procedure**

(1) Adjust L001 so that the voltmeter is 2.5±0.2V.

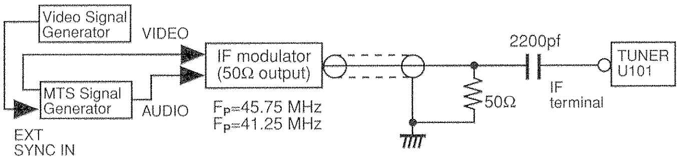


### 4-2 MTS Adjustment

### 4-2-1 Input Level Adjustment

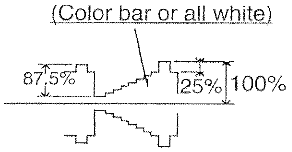
**Adjustment Preparation**

(1) Apply a signal to tuner (U101) using the jig shown below.


Video Signal Generator
VIDEO
MTS Signal Generator
AUDIO
EXT SYNC IN
IF modulator (50Ω output)
F_P=45.75 MHz
F_P=41.25 MHz
2200pf
50Ω
IF terminal
TUNER U101

**Note:** Video signal and audio signal should be synchronized.

IF modulator output signal wave form


(Color bar or all white)
87.5%
25%
100%

IF modulator output level and P/S
P=106dBu (50 ohm termination)
S level: -3dB to P level
At this time, S/N ratio of F/E video output is 45dB or less.

Sound modulation condition:
Noise reduction encoder: on
Stereo signal:
1. R=0 (L only), 300 Hz, 30% modulation (see note)
2. R=0 (L only), 3 KHz, 30% modulation (see note)
Monaural signal:
3. Monaural, 40 Hz 100% modulation (PRE-EN OFF)
SAP signal:
4. SAP, 300 Hz 30% modulation (see note)

**Adjustment Preparation**

(2) Connect AC voltmeter V to I402 pin ㉖.
Use the AC voltmeter of matsushita made, model VP-950C or equivalent.

(3) Same as item 4-1-1 (2).
(Apply +B to I201, I402). Refer to item 4-3.

(4) Same as item 4-1-1 (1)

(5) Select adjustment code "A04"

**Adjustment Procedure**

(1) Adjust the data "A04" to VO=sig 500m Vrms±10m Vrms at I402 pin ㉖.

### 4-3 Stereo VCO Adjustment

**Adjustment Preparation**

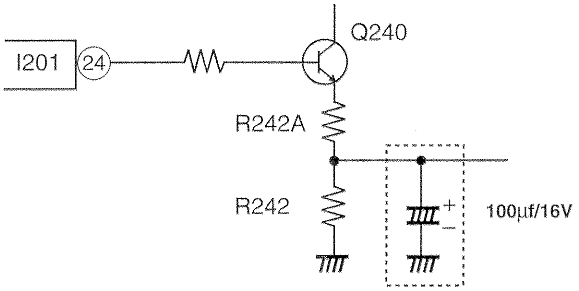
(1) Same at items 4-1-1 (1), (2), (4).

(2) Connect a frequency counter to I402 pin ㉖. Use the probe of 1:1. (Probe standard Ri≤1M ohm, Ci≤15pF)

(3) Input of I402 pin ⑦ is no signal.

(4) Select adjustment code "A01".

(5) Connect a capacitor (100µf/16V) as follows.


I201
24
Q240
R242A
R242
+
−
100µf/16V

**Adjustment Procedure**

(1) Adjust the data to set to 15.73±0.1 KHz by "◀ ▶" keys.

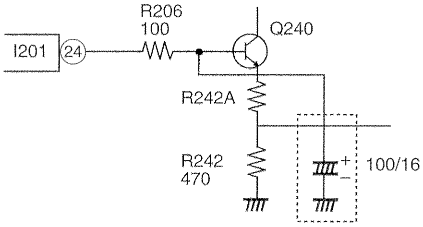
(2) Delete capacito r (100µf/16V).

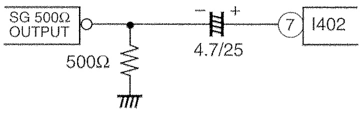
### 4-4 Filter Adjustment

**Adjustment Preparation**

(1) Set capacitor 100uF/16V as shown as follows.

(2) Apply the signal to I402 pin⑦ with the jig shown as follows.





ⓐSG output signal spec.
①FREQUENCY
f=15.73 KHz (sine wave)
②Signal Level
V=100mVrms

(4) Connect an AC voltmeter or oscilloscope to I402 pin ㉖.
(5) Select adjustment code "A03".

**Adjustment Procedure**

(1) Adjust the data so that the voltage of I402 ㉖ pin is minimum by "◀ ▶" keys.

### 4-5 Separation Adjustment

(The adjustment of items 4-2-1 and 4-4 must be completed first)

**Adjustment Preparation**

(1) Use the same jig as input level adjustment
(2) Connect an AC voltage meter through AUDIO AMP. to I402 pin ㉖ or connect an osilloscope.
(3) Select adjustment code "A06" and set data "D032".

**Adjustment Procedure**

(1) Select sound input signal ① and select adjustment code "A05" and adjust by "◀ ▶" keys so that 300Hz level in minimum (L separation adjustment)
(2) Select sound input signal ② and select adjustment code "A06", and adjust by "◀ ▶" keys so that 3KHz level is minimum.
(3) Repeat (1) and (2).
Adjustment precision: within +1dB from minimum point.

### 4-6 SAP VCO Adjustment

**Adjustment Preparation**

(1) Connect a frequency counter to I402 pin ㉖ .
(2) Select adjustment Code "A02".
(3) Connect same jig in item 4-3.

**Adjustment Procedure**

(1) Adjust the data by "◀ ▶" keys so that frequency is 78.67±0.5 KHz.

### 4-7 Cut-Off Adjustment (Picture Adjustment)

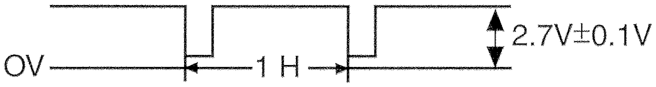
**Adjustment Preparation**

(1) Connect an oscilloscope at R, G, B output.
(2) Receive circle pattern signal.

| | I201 |
|---|---|
| R output | pin ⑲ |
| G output | pin ⑳ |
| B output | pin ㉑ |

**Adjustment Procedure**

(1) Select adjustment code "P06" and press "ENTER" button.
(2) Adjust R cut-off data as that R output waveform should be followed by "◀ ▶" key.
Adjustment for G and B are the same procedure as R cut-off adjustment. The only difference is the data for G cut-off is "P07" and B cut-off is "P08".



### 4-8 Deflection Circuit Picture Adjustment

#### 4-8-1 Horizontal Center Adjustment

**Adjustment Preparation**

(1) Apply heat-run 5 minutes or more after the power is turned on.
(2) Receive circle pattern signal.
(3) Set CONTRAST maximum and others center.

**Adjustment Procedure**

(1) Adjust horizontal center so that difference of right and left size marker is within 0.5 by adjustment code "P03"

#### 4-8-2 Vertical Size Adjustment

**Adjustment Preparation**

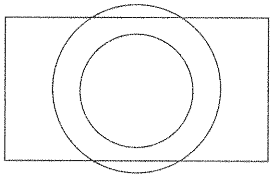
(1) Apply heat-run 5 minutes or more after the power is turned on.
(2) Receive circle pattern signal, and set CONTRAST maximum and others center.
(3) The set should face the north or south direction.

**Adjustment Procedure**

(1) Adjust vertical center and size so that the outer circle of the circle pattern is like the figure below by using "◀, ▶, ▲,▼" keys.

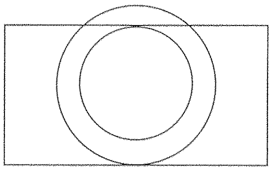
| | Adjustment Code |
|---|---|
| V Center | "P04" |
| V Size | "P05" |

(i) Standard Condition



1/2 of the width of outer circle comes to the screen.

(ii) When the picture center is above CPT center at V center is minimum



When the picture center is above CPT center, adjust so that the bottom of the inner circle comes in contact with the TOP of the screen.

### 4-9 White Balance Adjustment

**Adjustment Preparation**

(1) Apply heat-run 10 minutes or more after the power is turned on.
(2) Check that the purity adjustment has been completed.
(3) Set the vertical incident illumination on the CPT surface to 20 lux or less.
(4) Receive white raster signal.
(5) Set the color temperature control (white control) to warm.
(6) Turn the screen adjusting VR fully counterclockwise.
(7) Set adjustment mode "P06" and press "ENTER" button to set cut-off mode again. Press "ENTER" button to return to normal mode.

**Adjustment Procedure**

(1) Turn the screen adjusting VR clockwise and set it to the position where the bright colored line starts appearing on CPT screen.
(2) Do not change the cut-off data (this data is named "CODE-A") corresponding to the color first appearing.
(3) Turn the screen fully clockwise adjusting VR when a bright color lines does not appear.
(4) Adjust the cut-off data except Code-A so that the red, green and blue bright colored line appear on the screen equally by using "◀, ▶, ▲,▼" key.
(5) Set to normal mode by pressing "ENTER" key.
(6) Adjust picture control so the indication of the brightness meter is 80% of the full scale. Then, change G and B data by using "◀ ▶" key and adjust the high-brightness white balance.
(7) Adjust picture control to minimum and check that the low-brightness white balance is obtained by directly observing the low-brightness without using a mirror.
(8) When the low brightness white balance is not obtained, adjust other low-brightness white balance code except Code-A and return to item (6).
White balance color temperature setting 7,200° K
(9) Set white control (color temperature control) to cool, and check that color temperature is approx. 9,300° K.

| | Adjustment Code |
|---|---|
| R cut off | P06 |
| G cut off | P07 |
| B cut off | P08 |
| G drive | P09 |
| B drive | P10 |

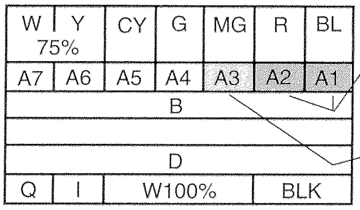
### 4-10 Sub Black Level Adjustment

**Adjustment Preparation**

(1) Apply heat-run for 10 minutes or more after the power is turned on.
(2) Receive color bar signal.
(3) Set the vertical incident illumination on the CPT surface to 20 lux or less.
(4) Set BRIGHTNESS control to the center position.
(5) Set white control to WARM.
(6) Set adjustment code "P11" by remo-con.

**Adjustment Procedure**

(1) Adjust "DATA" by using "◀ ▶" keys. The background of A1, A2 set to black and A3 is set lighter black.



The background is set to black. Perform the adjustment without observing the boundary parts.

The background is set to lighter black.

(2) Check by directly observing the CPT surface, without using a mirror.

### 4-11 AGC Adjustments

**Adjustment Preparation**

(1) After all the adjustments are finished, heat-run 5 minutes or more in signal receiving condition.
(2) Receive circle pattern signal.
(3) Set PICTURE to MAXIMUM and BLACK LEVEL to on-screen display center.
(4) Antenna input power: -53dBm
(5) Connect DC voltmeter of internal resistance 1MΩ or more to TP15.
(6) Set adjustment code "P02".

**Adjustment Procedure**

(1) Adjust AGC data until the indication of DC voltmeter does not change any more at the maximum point. The reading of DC voltmeter is named V1. Adjust AGC data so that the indication of DC voltmeter is (V1-(0.5±0.2)V.

### 4-12 Sub Tint Adjustment

Set adjustment code "P13".
Set data "-10" by "◀ ▶" keys. (27CX5B/C755, 27CX6B/C756, 28CX25B/C750)

### 4-13 Sub Sharpness Adjustment

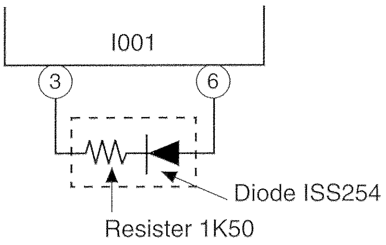
Set adjustment code "P14".
Set data "004" by "◀ ▶" keys. (27CX5B/C755, 27CX6B/C756. 28CX25B/C750)

## II. FUNCTION SETTING

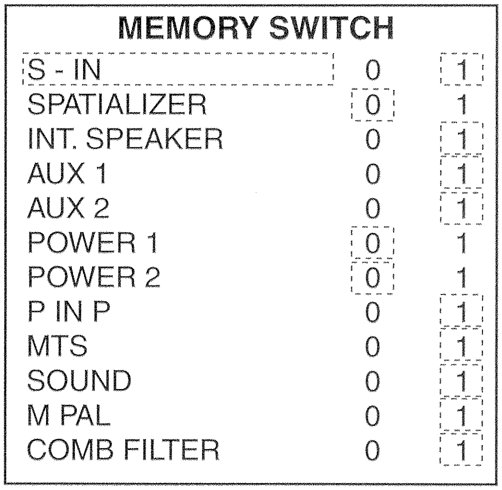
M3LXU (M3XU) Chassis has the data for setting variety functions in EEPROM (I002).
Microcomputer (I001) set the functions needed for each model according to EEPROM data (memory switch data).

### 1. HOW TO SET MEMORY SWITCH SETTING MODE

Connect a diode as follows at power on. (Continue connection)



An OSD will appear on screen as follows.



| MEMORY SWITCH | | |
|---|---|---|
| S - IN | 0 | 1 |
| SPATIALIZER | 0 | 1 |
| INT. SPEAKER | 0 | 1 |
| AUX 1 | 0 | 1 |
| AUX 2 | 0 | 1 |
| POWER 1 | 0 | 1 |
| POWER 2 | 0 | 1 |
| P IN P | 0 | 1 |
| MTS | 0 | 1 |
| SOUND | 0 | 1 |
| M PAL | 0 | 1 |
| COMB FILTER | 0 | 1 |

| Function name<br>(Yellow background shows cursor position) | Data<br>(Yellow background shows selected data) |
|---|---|

Cursor and data are changed by "◀,▶, ▲,▼" button.
After setting data, press "ENTER" button. Then MEMORY INITIALIZE operation start. After complete MEMORY INITIALIZATION, TIMER SOUND is outputed from left speaker.
**Note:** Press "MENU" to escape from setting mode.

## 2. EXPLANATION OF FUNCTIONS

(1) S-IN
Select S-Video mode or not.
Data "1" ..... apply S-VIDEO mode.
Data "0" ..... do not apply S-VIDEO mode.

(2) SPATIALIZER
This function is not applied on M3LXU/M3XU chassis.
Set data "0".

(3) INT. SPEAKER
This function selects INTERNAL SPEAKERS ON/OFF MODE.
Data "1" ..... apply INTERNAL SPEAKERS ON/OFF MODE.
Data "0" ..... do not apply.

(4) AUX 1, AUX 2
This is setting of VIDEO INPUT MODE.

| | AUX 1 | AUX 2 | |
|---|---|---|---|
| Data | 1 | 1 | ..... apply VIDEO INPUT MODE |
| Data | 0 | 0 | ..... apply NO VIDEO INPUT MODE |

(5) POWER 1, POWER 2
Initial settings at plug in

| POWER 1 | POWER 2 | |
|---|---|---|
| 0 | 0 | ..... Power off mode (normal) |
| 1 | 0 | ..... Power on at last state |
| 0 | 1 | ..... Power on at video mode |
| 1 | 1 | ..... Power on at TV (4CH) mode |

(6) P IN P
Select P in P function.
Data "1" ..... apply on P in P model.
Data "0" ..... do not apply on non P in P model.

(7) MTS
Select MTS function.
Data "1" ..... apply on MTS model.
Data "0" ..... do not apply on non MTS model.

(8) SOUND
Select SOUND "BALANCE, BASS, TREBLE" functions.
Data "1" ..... apply on SOUND function.
Data "0" ..... do not apply on SOUND function.

(9) M PAL
See Table 2 for model name data.

(10) COMB FILTER
Select COMB FILTER MODEL or not.
Data "1" ..... apply on COMB FILTER model.
Data "0" ..... do not apply on nonCOMB FILTER model.

**TABLE 2 MODEL AND DATA TABLE**

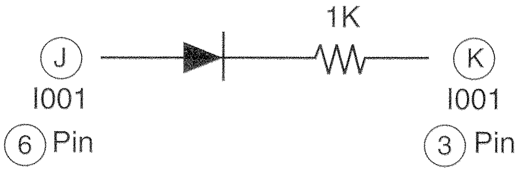
| | MODEL NAME | | |
|---|---|---|---|
| **DATA NAME** | 27CX5B(C755)<br>27CX6B(C756) | 27CX25B(C750) | 20SA3B(C053) |
| S-IN | 1 | 1 | 0 |
| SPATIALIZER | 0 | 0 | 0 |
| INT. SPEAKER | 1 | 1 | 1 |
| AUX 1 | 1 | 1 | 1 |
| AUX 2 | 1 | 1 | 1 |
| POWER 1 | 0 | 0 | 0 |
| POWER 2 | 0 | 0 | 0 |
| P IN P | 1 | 0 | 0 |
| MTS | 1 | 1 | 1 |
| SOUND | 1 | 1 | 0 |
| M PAL | 1 | 1 | 0 |
| COMB FILTER | 1 | 1 | 0 |

## III. MEMORY INITIALLIZE

### 1. TIMER SOUND OPERATION CHECK

**Adjustment Procedure**

(1) Connect diode (ISS270TA or IS2076) to Ⓙ~Ⓚ



(2) Confirm OSD-memory switch appears.
(3) Remove diode.
After this operation, each setting should become to delivery setting automatically.
(4) When the above operation is being performed check that a beeping sound is made from the left speaker.

## IV. OPERATION CHECK

### 1. AFC OPERATION CHECK

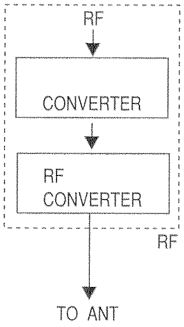
**Adjustment Preparation**

(1) Connect the jig as shown below to the ANT terminal.

**Adjustment Procedure**

(1) Receive a standard carrier (not offset) with the channel up/down or direct selection buttons.
(2) Receive an offset signal of +1.5MHZ.
(3) Receive an offset signal of -1.5MHZ.
Check that it is pulled into the standard tuning point.
(Perform the channel selection operation.)
**Note:** Modulation signal should be used at the circle pattern and the color bar signal.

Checking jig (All channel converter can be used)



## 2. CHANNEL SELECTION CIRCUIT OPERATION CHECK

### 2-1 Channel up/down selection

**Adjustment Preparation**

(1) Set the TV set so that VHF (11,13CH), UHF (14, 46, 63CH) and CATV (A, E, P, W, CH) can be received.

(2) Set AIR/CABLE mode to AIR.
(Press the MENU key, and select the SETUP and AIR/CABLE mode using ENTER key.)

**Adjustment Procedure**

(1) Check that VHF are received correctly by pressing CH UP (▲) or DOWN (▼) button.

**Adjustment Preparation**

(3) Set AIR/CABLE mode to CATV 1.

**Adjustment Procedure**

(2) Perform the same operation as in item (1), and check that VHF and CATV are received correctly.

**Adjustment Preparation**

(4) Set AIR/CABLE mode to CATV 2.

**Adjustment Procedure**

(3) Perform the same operation as in item (1), and check that VHF and CATV are received correctly.

**Adjustment Preparation**

(1) Set the TV set so that VHF (11, 13CH), UHF (14, 46, 63CH) and CATV (A, E, P, W, A-2, GG, OO, WW, CH) can be received.

**Adjustment Procedure**

(1) Set AIR/CABLE mode to AIR.

(2) Select AUTO PROGRAM mode and press (ENTER) key.
After AUTO PROGRAM operation is completed, by pressing the channel UP (▲) or DOWN (▼) button, check that the channels having broadcast signal (s) can be received.

(3) Set AIR/CABLE mode to CATV 1.

(4) Perform the same operation as in item (2) check that CATV can be received correctly.

**Adjustment Preparation**

(2) Set to PROGRAM LIST mode.
(Menu under PROGRAM mode)

**Adjustment Procedure**

(5) Check that the above items is SCANNED and the channels is listed "ON" on the program list.
**Note:** CATV channels, actual input channel numbers and indicated channel numbers.

A .......................... 14
E .......................... 18
P .......................... 29
W .......................... 36
A-2 ...................... 98
GG (W+7) ............ 43
OO (W+15) .......... 51
WW (W+23).......... 59

**Note:** Display while AUTO PROGRAM is operating.

```
CHANNEL        13


NOW AUTOPROGRAM
IS IN PROGRESS
```

**Note:** CATV channels, actual input channel numbers and indicated channel numbers shown in Table 3 below.

---

**TABLE 3**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 37 | 31 | 32 | 33 | 34 | 35 | 36 |
| MID BAND | | | | | | | | | SUPER BAND | | | | | | | | | | | | | |

| W+1 | W+2 | W+3 | W+4 | W+5 | W+6 | W+7 | W+8 | W+9 | W+10 | W+11 | W+12 | W+13 | W+14 | W+15 | W+16 | W+17 | W+18 | W+19 | W+20 | W+21 | W+22 | W+23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 |
| HYPER BAND | | | | | | | | | | | | | | | | | | | | | | |

| W+24 | W+25 | W+26 | W+27 | W+28 | W+29 | W+30 | W+31 | W+32 | W+33 | W+34 | W+35 | W+36 | W+37 | W+38 | W+39 | W+40 | W+41 | W+42 | W+43 | W+44 | W+45 | W+46 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 |
| HYPER BAND | | | | | ULTRA BAND | | | | | | | | | | | | | | | | | |

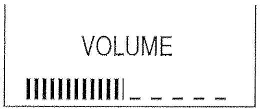
| W+47 | W+48 | W+49 | W+50 | W+51 | W+52 | W+53 | W+54 | W+55 | W+56 | W+57 | W+58 | A-5 | A-4 | A-3 | A-2 | A-1 | W+59 | W+60 | W+61 | W+62 | W+63 | W+64 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 |
| ULTRA BAND | | | | | | | | | | | | MID BAND | | | | | ULTRA BAND | | | | | |

| W+65 | W+66 | W+67 | W+68 | W+69 | W+70 | W+71 | W+72 | W+73 | W+74 | W+75 | W+76 | W+77 | W+78 | W+79 | W+80 | W+81 | W+82 | W+83 | W+84 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 |
| ULTRA BAND | | | | | | | | | | | | | | | | | | | |

### 2-2 VOL UP/DOWN

**Adjustment Procedure**

(1) Check that the sound volume level and volume indication is going up or down continuously by pressing sound volume UP (▲) or DOWN (▼) button.


VOLUME
IIIIIIIIIII_ _ _ _ _

### 2-3 POWER ON/OFF

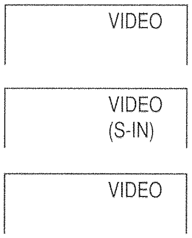
**Adjustment Procedure**

(1) Check that the power alternates between ON and OFF by pressing the POWER button.

### 2-3-1 AVX

**Adjustment Procedure**

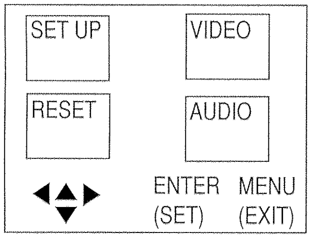
(1) Check that the OSD displays by pressing the AVX button, such as below.
(C756/C755/C750)
Receiving CH → VIDEO
→ VIDEO (S-IN)
→ Receiving CH
(C053)
Receiving CH→VIDEO
→ Receiving CH


VIDEO
VIDEO
(S-IN)
VIDEO

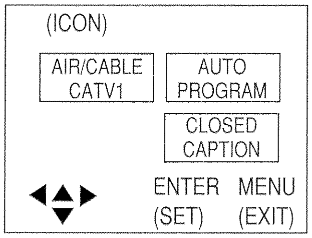
### 2-4 MENU (Except C053)

**Adjustment Procedure**

(1) Check that the MENU OSD displays by pressing MENU button.
**Note:** MENU OSD is displayed as below.
(2) After MENU OSD is displayed.


SET UP
VIDEO
RESET
AUDIO
◀▲▶
▼
ENTER
(SET)
MENU
(EXIT)

1st Page


(ICON)
AIR/CABLE
CATV1
AUTO
PROGRAM
CLOSED
CAPTION
◀▲▶
▼
ENTER
(SET)
MENU
(EXIT)

2nd Page of SET UP Mode

Check that the keys function change as below.
MENU .................... → MENU
CH UP .................. → ▲ Key
CH DOWN ............ → ▼ Key
VOLUME UP .......... → ▶ Key
VOLUME DOWN ... → ◀ Key
AVX ....................... → ENTER

### 2-5 MENU mode (using Remo-con)

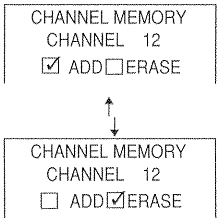
### 2-5-1 SET UP mode

**Adjustment Preparation**

(1) Set to CHANNEL MEMORY mode.

**Adjustment Procedure**

(1) Check that ADD or ERASE is selected by pressing the ▶,◀ button.

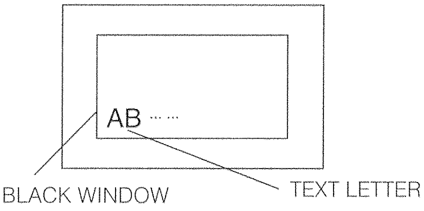

CHANNEL MEMORY
CHANNEL 12
☑ ADD☐ERASE
CHANNEL MEMORY
CHANNEL 12
☐ ADD☑ERASE

**Adjustment Preparation**

(2) (a) Set the mode to CLOSED CAPTION.
(2) (b) Receive a signal having a CLOSED CAPTION signal.

**Adjustment Procedure**

(1) Set DISPLAY setting to ON with ▶,◀ button. At this time, set the other settings as follows.
1. DISPLAY: ON
2. MODE: C.C
3. CHANNEL: 1
(2) Check that the CAPTION corresponding to the above setting is displayed on the screen.
(3) Set CHANNEL to 2.
(4) Check that the CAPTION of CHANNEL 2 is displayed on the screen.
(5) Set CHANNEL to 1.
(6) Check that the CAPTION of CHANNEL 1 (FIELD 2) is displayed on the screen.
(7) Set the mode to TEXT.
(8) Check that a black window appears and TEXT letters are displayed at the center of the screen.
(9) Repeat adjustment procedure from (3) to (6), and check that TEXT letters are displayed corresponding to each mode.
(10) Set the mode to CAPTION.
(11) The black window should disappear returning to the state of (2).
(12) Set ON/OFF to OFF.
(13) Check that the CAPTION letters disappears.

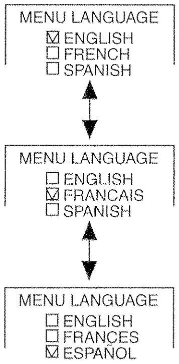

AB ......
BLACK WINDOW
TEXT LETTER

**Adjustment Preparation**

(3) Set to MENU LANGUAGE mode.

**Adjustment Procedure**

(14) Check that language (ENGLISH, FRENCH, SPANISH) is selected by pressing the ▲,▼ button.


MENU LANGUAGE
☑ENGLISH
☐FRENCH
☐SPANISH
MENU LANGUAGE
☐ENGLISH
☑FRANCAIS
☐SPANISH
MENU LANGUAGE
☐ENGLISH
☐FRANCES
☑ESPAÑOL

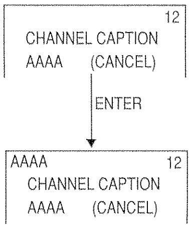
### 2-5-2 PROGRAM mode

**Adjustment Preparation**

(2) Set to CHANNEL CAPTION mode.

**Adjustment Procedure**

(1) Select the letter "A" by pressing the ▲,▼ button, and select the input position by pressing the ▶,◀ button.


12
CHANNEL CAPTION
AAAA (CANCEL)
ENTER
AAAA 12
CHANNEL CAPTION
AAAA (CANCEL)

(2) After pressing the ENTER button, check that it indicates "AAAA" same as CH No. indication.
(3) Select CHANNEL CAPTION mode again.
Select the "CANCEL" by pressing the ▶,◀ button and press the ENTER button.
(4) Check that "AAAA" is deleted when the CH No. is indicated after pressing the "MENU" button.

**Adjustment Preparation**
(3) Set to CHILD LOCK MODE.

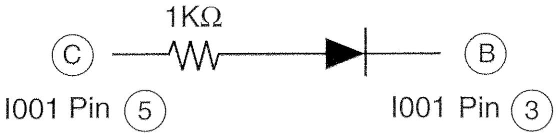
**Adjustment Procedure**
(1) Select CHILD LOCK SET by ▶◀ button.
(2) Press "0" button 3 times.
("000" is input)
(3) Check that the picture becomes pitch-dark, and sound does not come out.
(4) Set to CHILD LOCK mode again, and select 'CHILD LOCK CANCEL" by ▶◀ button.
(5) Press "0" button 3 times.
("000" is input)
(6) Check that the picture and sound return to the previous condition.

**Adjustment Preparation**
(4) Set to VOLUME CORRECTION mode.

**Adjustment Procedure**
(1) Select the registration point using ▲▼ button and received Channel No. is memorized by pressing the ENTER button.
**Note:** 4CH can be memorized.
(2) Check that volume level changes and sets 100%–50% (5% step) using ▶◀ button.

### 2-5-3 CLOCK mode (Clock operation check)

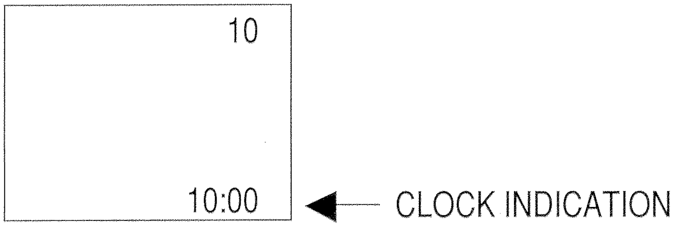
**Adjustment Preparation**
(1) Connect diode (IS2076, ISS270TA or equivalent) between Ⓒ and Ⓑ.



Remarks: The addition of the above diode intends to check the operation with clock counting operation as 60 times mode.

(2) Set to CLOCK SET mode.

**Adjustment Procedure**
(1) After clock setting is done and the indication disappears, perform CH indication. Check that clock indication is displayed in addition to the CH indication, and that the clock indication is going to 1 second per minute.



### 2-5-4 PICTURE mode

**Adjustment Preparation**
(1) Receive the color bar signal.
(2) Set to CONTRAST mode.

▶ ; BRIGHTER
◀ ; DARKER

**Adjustment Procedure**
(2) Check that CONTRAST is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**
(3) Set to TINT mode.

▶ ; MORE GREEN
◀ ; MORE RED

**Adjustment Procedure**
(3) Check that TINT is changed by presing control ◀/▶ buttons.

**Adjustment Preparation**
(4) Set to COLOR mode.

▶ ; DEEPER
◀ ; LIGHTER

**Adjustment Procedure**
(4) Check that COLOR is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**
(5) Set to BRIGHTNESS mode.

▶ ; BRIGHTER
◀ ; DARKER

**Adjustment Procedure**
(5) Check that BRIGHTNESS is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**
(6) Set to SHARPNESS mode.

▶ ; CLEARER
◀ ; SOFTER

**Adjustment Procedure**
(6) Check that SHARPNESS is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**
(7) Set to WHITE CONTROL mode.

▶:WARM
◀:COOL

**Adjustment Procedure**
(7) Check that WHITE CONTROL is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**
(8) Set to RESET mode.

**Adjustment Procedure**
(8) Check that all picture setting modes return to delivery settings by pressing ENTER button.

### 2-5-5 SOUND mode (Except C053)

**Adjustment Preparation**
(1) Set to BALANCE mode.

▶ ; RIGHT
◀ ; LEFT

**Adjustment Procedure**
(1) Check that BALANCE is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**
(2) Set to BASS mode.

▶ ; STRONG
◀ ; WEAK

**Adjustment Procedure**
(2) Check that BASS is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**

(3) Set to TREBLE mode.

**Adjustment Procedure**

(3) Check that TREBLE is changed by pressing control ◀/▶ buttons.

**Adjustment Preparation**

(4) Set to RESET mode.

**Adjustment Procedure**

(4) Check that all sound setting modes return to delivery settings by pressing ENTER button.

**Adjustment Preparation**

(5) (a) Set to "VOLUME" step at *10. Set to "BASS" and "TREBLE" at center when 'LOUDNESS" is turned OFF. Set to "LOUDNESS" Mode.
  (b) Set "LOUDNESS" to OFF, and "BASS/TREBLE" to center.
  (c) Set it to LOUDNESS Mode.

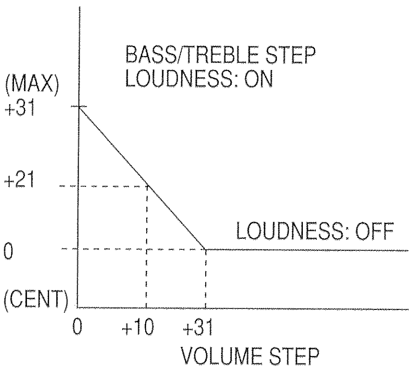
**Adjustment Procedure**

(5) Check that "BASS" and "TREBLE" are changed as below table when set to 'LOUDNESS" is turned ON by pressing (◀) or (▶) control button "LOUDNESS" turn OFF after checked.

| LOUDNESS | BASS | TREBLE |
|---|---|---|
| OFF | CENTER | |
| ON | +21 STEP | |

(when volume is st 10)

***Note:** According to Volume Setting Level, this function works as shown in below figure.



## V. + B ADJUSTMENT (THIS ADJUSTMENT MUST BE DONE AFTER 30 SECONDS OR MORE HEAT-RUN)

(1) Receive Circle pattern signal.
(2) Set BRIGHTNESS control and CONTRAST control to maximum.
(3) Set the AC voltage 120V±1V (Distortion is 3% or Less)
(4) Connect the DC voltmeter to R909.
(5) Adjust R928 so that the indication of the DC voltmeter is 96. 0±0. 3V.

## VI. DEFLECTION CIRCUIT PICTURE ADJUSTMENT OPERATION CHECK

### 1. M3LXU CHASSIS HIGH VOLTAGE LIMITER CIRCUIT OPERATION CHECK

**Adjustment Preparation**

(1) Connect a high voltage voltmeter between CPT anode terminal (anode capside) and the ground as shown.
(2) Set AC input voltage to 120±3V.
(3) Receive Circle pattern and set "BRIGHTNESS" and "CONTRAST" to maximum. Adjust Screen VR so that beam current is IB±0. 1 mA. (The voltage of ABL terminal -C725 both ends should be 12V or less)
(4) Connect R831 (Q804 collector side) to GND.

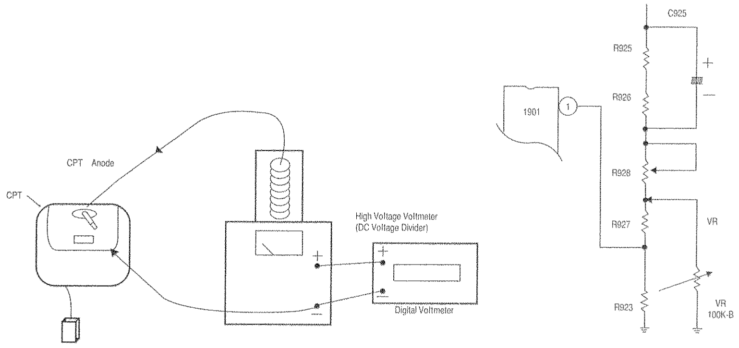
**Adjustment Procedure**

(1) Check that the normal high voltage and +B voltage is as below.

| CHASSIS | EHT ±1KV | IB±0.1mA | IB±0.3V | E1±1.2KV |
|---|---|---|---|---|
| C755/C756 | 27.5 (KV) | 1.5 (mA) | 96.0 (V) | 32.5 (KV) |
| C750 | 27.5 (KV) | 1.5 (mA) | 96.0 (V) | 32.5 (KV) |

**Adjustment Preparation**

(5) Set AC input voltage to 120±3V. Then, connect the VR (100K-B) to R925 and ground side as below.
**Note:** At that time the value of VR should be maximum.



Use the voltmeter in input impedance 10M ohm or more with indication to the 1st demical place.

**Adjustment Procedure**

(2) Keep CONTRAST, BRIGHTNESS, and SCREEN VR as in item (3). Reduce the VR value gradually, and check that the picture disappears when high voltage is E1. Immediately after checking that it disappears, turn off the set switch. Remove the VR and high voltage voltmeter. When connecting or removing high voltage voltmeter to or from anode cap, be sure to turn off the switch of the set. Also, be sure to perform it after the chassis discharge of residual high voltage, because the high voltage of CPT anode may be left.

### 2. M3XU CHASSIS HIGH VOLTAGE LIMITER CIRCUIT OPERATION CHECK

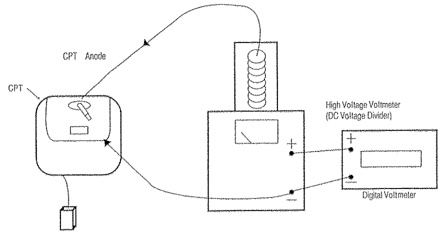
**Adjustment Preparation**

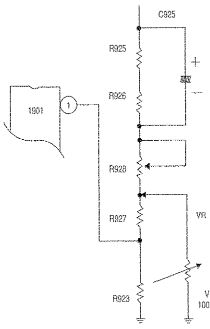
(1) Connect a high voltage voltmeter between CPT anode terminal (anode capside) and the ground as shown as follows.
(2) Set AC input voltage to 120±3V.
(3) Receive Circle pattern and set "BRIGHTNESS" and "CONTRAST" to maximum. Adjust Screen VR so that beam current is IB±0. 1 mA. (The voltage of ABL terminal -C725 both ends should be 12V or less)

**Adjustment Procedure**

(1) Check that the normal high voltage EHT as below.

| CHASSIS | EHT ±1KV | IB±0.1mA | E1±1.2KV |
|---|---|---|---|
| C053 | 27.5 KV | 1.1 mA | 30.5 KV |


CPT Anode
CPT
High Voltage Voltmeter
(DC Voltage Divider)
+
−
+
Digital Voltmeter


C925
R925
+
−
I901
1
R926
R928
R927
VR
R923
VR
100K-B

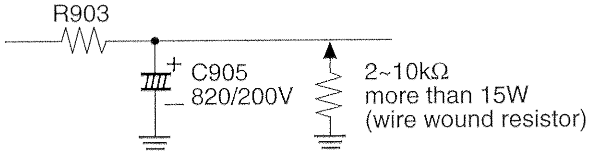
Use the voltmeter of input impedance 10M ohm or more with indication to the first decimal place.

**Adjustment Preparation**

(4) Turn the power ON and receive circle pattern signal. Set PICTURE and BRIGHTNESS to maximum and the others to the normal (RESET) condition.
(5) Turn the power OFF and short circuit both ends of R906 with jumper wire.
(6) Adjust the slidac so that the input power voltage of TV set to 100±5V.
(7) Turn the power ON and increase the input power voltage gradually while adjusting the slidac. Check the indicated value by the high voltage voltmeter and picture condition.
(8) While continuing the above operation, read the operating voltage of X-ray protection circuit E1.
(9) When X-ray protection circuit operates, set the input power voltage to zero by the slidac and remove the jumper wire and the high voltage voltmeter.

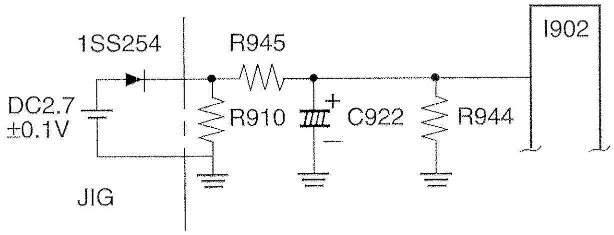
## 3. M3LXU CHASSIS FBT PROTECTION CIRCUIT OPERATION CHECK

(1) Set "CONTRAST" to MAXIMUM, "BRIGHTNESS" to CENTER.
(2) Connect an 18KΩ 1/2W resistor between +B line and D711 cathode. Check that the picture disappears.
(3) Immediately after checking, DISCONNECT the power cord of the set.
(4) Discharge C905 as follows.


R903
+
C905
820/200V
2~10kΩ
more than 15W
(wire wound resistor)

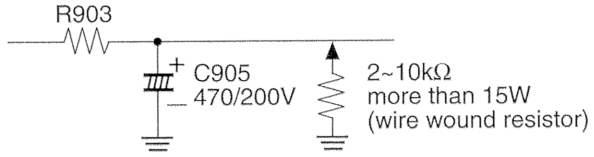
## 4. M3XU CHASSIS FBT PROTECTION CIRCUIT OPERATION CHECK

(1) Set "CONTRAST" to MAXIMUM, "BRIGHTNESS" to CENTER.
(2) Apply DC voltage to both end of R910 as below. And check that the picture disappears.


1SS254
R945
I902
DC2.7
±0.1V
R910
+
C922
R944
JIG

**Note:** To prevent excess load of R910, DC voltage should be applied to R910 less than 2 sec.

(3) Immediately after checking, DISCONNECT the power cord of the set.
(4) Discharge C905 as follows.


R903
+
C905
470/200V
2~10kΩ
more than 15W
(wire wound resistor)

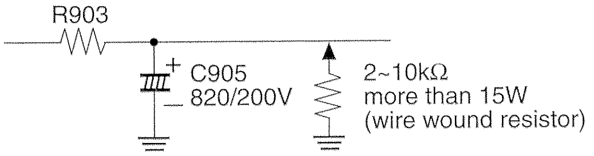
## 5. CHECK 16V SHORT CIRCUIT PROTECTION CIRCUIT. (M3LXU CHASIS ONLY)

**Adjustment Preparation**

(1) Set "CONTRAST" to MAXIMUM, "BRIGHTNESS" to CENTER.

**Adjustment Procedure**

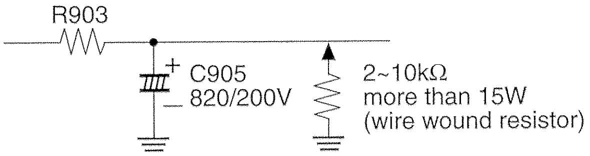
(1) Connect 10KΩ resistor between Q945 base and GND and check that the picture disappears.
(2) Disconnect resistor and the power cord immediately.
(3) Discharge C905 as follows.


R903
+
C905
820/200V
2~10kΩ
more than 15W
(wire wound resistor)

## 6. LOAD SHORT CIRCUIT PROTECTION CIRCUIT OPERATION CHECK

**Adjustment Procedure**

(1) Receive circle pattern signal.
(2) Set "CONTRAST" to MAXIMUM, "BRIGHTNESS" to CENTER.
(3) After turning on the switch of the set, confirm that the DC voltage of D019, D020, D703 and D717 at each cathode side should be 6V±1. OV.
(4) Short-circuit both ends of R091 and check that the picture disappears within 2-3 sec.
(5) Disconnect short-circuit for R091 and the power cord.
(6) Discharge C905 as follows.


R903
+
C905
820/200V
2~10kΩ
more than 15W
(wire wound resistor)

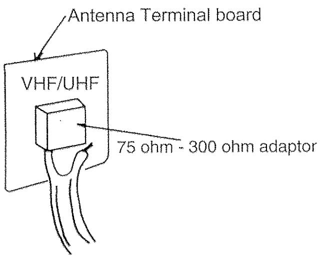
## 7. WEAK ELECTRIC FIELD CHECK

**Adjustment Preparation**

(1) Connect one side of the 300 ohm feeder to 75 ohm–300 ohm antenna adaptor. Connect the antenna adaptor to the VHF antenna terminal board as shown below.
(2) Turn to no signal condition.

**Adjustment Procedure**

(1) Check that the phenomena such as oscillation and abnormal beat etc. do not occur in all the channel.

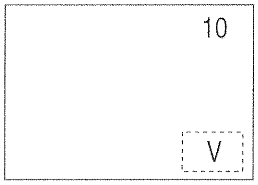

Antenna Terminal board
VHF/UHF
75 ohm - 300 ohm adaptor

## VII. P IN P OPERATION CHECK

### 1. P IN P EXCEPT C750/C053

**Adjustment Preparation**

(1) Connect a signal to ANT input and receive it.
(2) Connect a signal to VIDEO input.



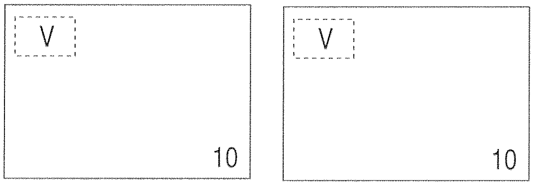
**Adjustment Procedure**

(1) Check that by pressing "P in P" button of remo-con, sub-picture alternates between ON and OFF. When sub-picture is ON, check that the channel number and "V" are displayed.

### 2. SHIFT

**Adjustment Preparation**

(1) Press "P in P" button to set to P in P mode.



**Adjustment Procedure**

(1) Check that by pressing SHIFT button of remo-con, sub-picture moves counterclockwise. At this time, check that "V" of sub-picture also moves as well.

**Note:** When sub-picture is in the upper side of the screen, the channel number of main picture comes to the lower right, as shown in the figure.

### 3. EXCHANGE

**Adjustment Preparation**

(1) Press "P in P" button to set to P in P mode.

**Adjustment Procedure**

(1) Check that by pressing "EXCHANGE" button, the contents of main picture and sub-picture are exhanged.

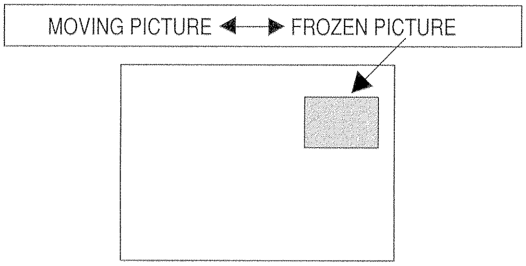
### 4. FREEZE

**Adjustment Preparation**

(1) Connect a signal to ANTENNA input and VIDEO input. (One or both of the pictures should be moving picture).
(2) Press "P in P" button to set to P in P mode.
(3) Sub-picture should be moving picture by pressing "EXCHANGE" button.

**Adjustment Procedure**

(1) Check that, by pressing "FREEZE" button, sub-picture alternates between moving picture and frozen picture.



(2) Press "P in P" button to make sub-picture disappear.

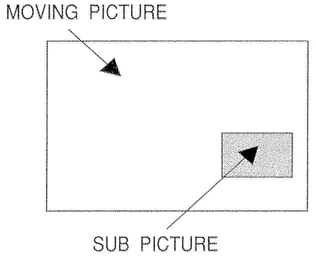
### 5. FREEZE (AT P IN P OFF)

**Adjustment Preparation**

(1) Connect a signal to ANTENNA input and VIDEO input. Both signals should be moving picture.
(2) Set P in P to OFF.

**Adjustment Procedure**

(1) Check that frozen picture of main screen appears by pressing FREEZE button of the remo-con.
(2) Check it also in the TV and VIDEO modes.
(3) Check that sub-picture disappears by pressing FREEZE button at picture frozen.
(4) Check that it turns to normal P in P sub-picture by pressing P in P button at picture frozen.



## VIII. FINAL ASSEMBLY ADJUSTMENT/COMMON SERVICE ADJUSTMENT

### 1. PURITY CONVERGENCE ADJUSTMENT

**Note:** For Non ITC type A51KQN61X (20V), A68KRQ58X (HITACHI 27V), apply item 1.1–1.2(8).

For ITC Type A68ADT25X01 (27V), only apply item 1.2(8) (Purity check)

#### 1-1 Preparation of adjustment

(1) Keep DY sticked to CPT funnel.
(2) Turn ON the set and receive cross-hatch signal (or circle pattern signal). Adjust the static convergence coarsely according to item 1-5.
(3) Receive circle pattern signal and adjust the white balance according to item I–4 (4-9).
(4) Set BRIGHTNESS control and CONTRAST control to maximum and apply heat-run to the set with circle pattern signal received for 40 min or more.

#### 1-2 Purity adjustment

THIS ADJUSTMENT METHOD APPLIES TO THE PURITY ADJUSTMENT BY USING MICROSCOPE.

(1) Adjust coarsely White balance, Static convergence (center) and Focus.
(2) Receive circle pattern and heat-run more than T minutes with CONTRAST and BRIGHTNESS to maximum. Do not delete the raster nor vary the current before fixing the position of DY. Heat-run should be done with perfect raster.
(DY and tilt should have been coarsely adjusted)

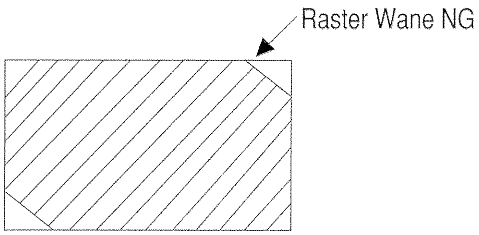


Table 1.

| CPT | T |
|---|---|
| A68KRQ58X | 40 Min. |
| A51KQN61X | 20 Min. |
| | |

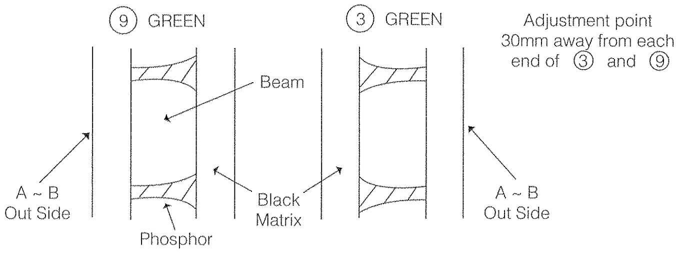
(3) The magnetic field in artificial magnetic field should follow the table below and the set should face as in table 2. Degauss it from outside.

| DESTINATION | VERTICAL FIELD | HORIZONTAL FIELD |
|---|---|---|
| USA | 0.45 G | 0.3 G |
| CANADA | 0.54 G | 0.15 G |
| UNIVERSAL | 0.35 G | 0.3 G |
| PANAMA, HAWAII | 0.2 G | 0.3 G |
| TAIWAN | 0.22 G | 0.37 G |

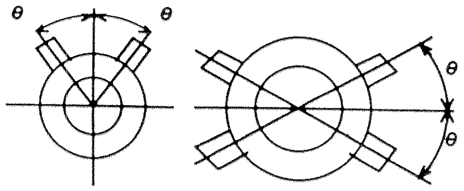
Table 2.
Directions for adjustment

| | |
|---|---|
| A68KRQ58X | North |
| A51KQN61X | North |
| | |
| | |

(4) Adjust the position of purity magnet and DY. Keep the landing balance of ③ and ⑨, and adjust so that the landing of ③ and ⑨ is as follows while observing with a microscope.


⑨ GREEN
③ GREEN
Adjustment point 30mm away from each end of ③ and ⑨
Beam
Black Matrix
Phosphor
A ~ B Out Side
A ~ B Out Side

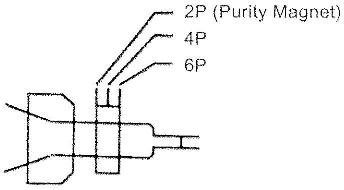
(a) Open the purity magnet as follows in order to move the raster only in the right-left direction.



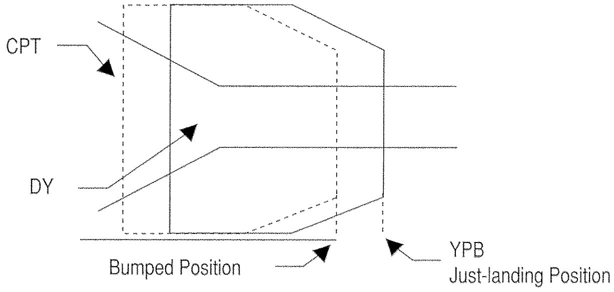
C-F MAGNET
P#2773671

C-F MAGNET
P#2773672

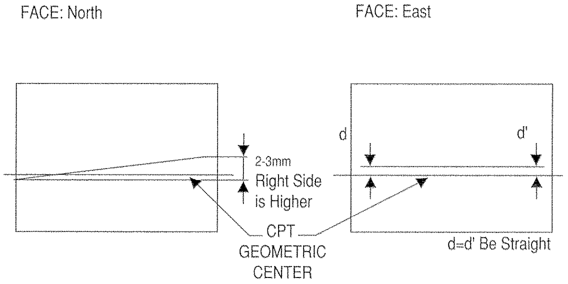
Keep the balance of ③/⑨ DY landing


2P (Purity Magnet)
4P
6P

(b) YPB (Yoke pull-back) should be as follows.
(Distance between the bumped position of DY toward the funnel and the just-landing position of ③ and ⑨)


CPT
DY
Bumped Position
YPB
Just-landing Position

(c) DY tilt should be as follows.


FACE: North
FACE: East
2-3mm
Right Side is Higher
CPT GEOMETRIC CENTER
d
d'
d=d' Be Straight

(5) Fix DY with fixing torque of 14kg.cm.
Control the torque by an electric driver.

(6) If any miss landing occurs, correct with magnets.
If any wane of 10μ or so, judge by white unevenness.
At this time, if the white uneveness is all right, any magnet is not needed.

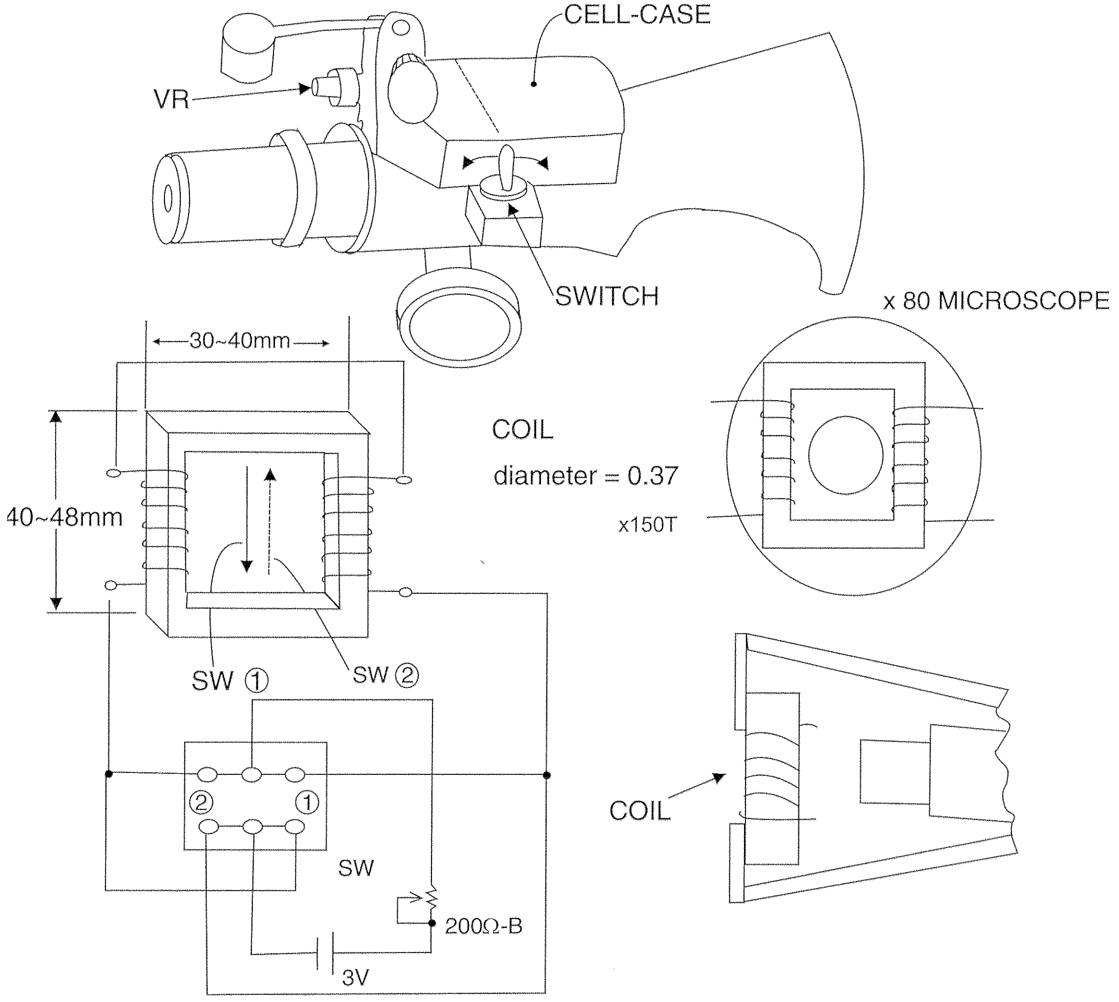
(7) After peripheral convergence is adjusted, check the position of DY and tighten the DY again. (14kg.cm)

(8) Purity check
The magnetic field in artificial magnetic field should follow the magnetic field according to the destination, and the set should face as follows. After degaussing in each direction, check these items visually and with a microscope.
(a) No problem in white uneveness.
(b) Each single color must not hit any other colors.
(c) If white or each single color is defective, apply a magnet (s) on CPT for correction.
If any magnet is applied, check it after degaussing.

## THE MICROSCOPE

Reference

### THE JIG



Fix coil to CRT side of microscope. Set it upside down and measure it. Check that beam moves to the right and left equally in quantity. Be careful at assembly that core does not tilt because upward (downward) magnetic field by coil moves the beam to the right (left) or type MS-50X microscope of KANSAI DENKI.

**1-3 PURITY ADJUSTMENT**

(This adjustment method applies to purity adjustment by hand operation.)

(1) Use an artificial magnetic field and set the field strength as follows.
*Magnetic field in CPT axis direction: O Gauss
*Magnetic field which is vertical to CPT asix:
U.S.A., Hawaii, Panama, Guam
Bolivia, Peru, Universal ..................... 0.3 Gauss
Canada ............................................ 0.15 Gauss
Taiwan .............................................. 0.37 Gauss
(The direction of the magnetic field should be from the left side to the right side of the CPT screen as you face it.)

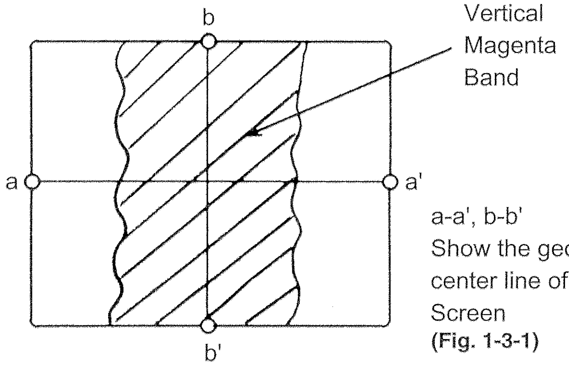
(2) Adjust Focus coarsely according to item 2.

(3) Adjust Convergence coarsely according to item 1-4 and 1-5.

(4) Receive Circle Pattern signal and check that Contrast and Brightness are maximum.

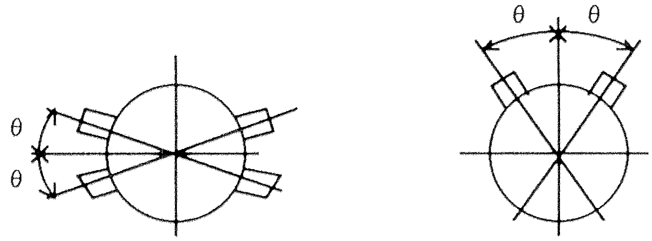
(5) Receive magenta signal. When the magenta signal is not available, short-circuit between the base and emitter of Q855 to set to magenta.

(6) Press DY fully against CPT funnel and turn the purity magnet so that the vertical magenta band comes to the center of the picture (Fig. 1-3-1). Check that color uneveness of both sides are approximately equal at this time.
The openings of the purity magnet should by symmetric (Fig. 1-3-2.).



a-a', b-b'
Show the geometric
center line of CPT
Screen

**(Fig. 1-3-1)**



C-F MAG P#2773672

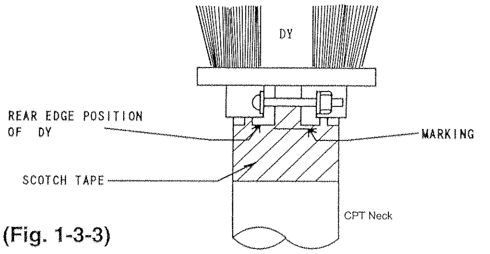
C-F MAGNET
P#2773671

The openings of the purity magnet should by symmetric:
on the right and left sides (P#2773671)
on the upper and lower sides (P#2773672)

**(Fig. 1-3-2)**

(7) Receive the single red signal.
When the single red signal is not available, short-circuit between the base and emitter of Q845, and between the base and emitter of Q857 to set to single red.

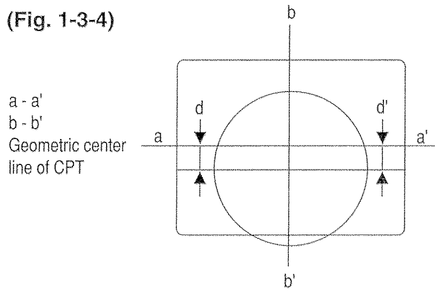
(8) Pull back DY gradually and when the color uneveness of both sides of the picture disappear, mark the rear edge position of DY on the tape wound around CPT neck as shown in Fig. 1-3-3.
Pull back DY further and just before the color uneveness starts to appear on the both sides of the picture, mark the rear edge position of DY on the tape by the same way.
At this time, pull back DY so that the center axis of DY and CPT axis match.



**(Fig. 1-3-3)**

(9) Move DY so that the rear edge positon of DY comes to the center of the two marked lines and fasten DY as d=d'.
(Fig. 1-3-4.). Further insert the rubber wedge between DY and CPT funnel from the top and raise DY backwards.

**(Fig. 1-3-4)**



(10) Set CPT axis direction magnetic field of the artificial magnetic field according to the artificial magnetic field setting list classified by destination.
(The direction of the magnetic field should be from the CPT screen side to the neck side.)

(11) After degaussing it from outside, check the purity in each color of R, G and B visually.
Then, turn the screen to white and check the landing at the screen position shown in Fig. 1-3-5 with a microscope.

**Criteria with microscope**
There should be no miss landing at positions 2, 4, 8 and 10
Green beam should be at the center of the green phosphor at position C. (Refer to the miss landing criteria.)

(12) Turn over the direction of CPT axis direction magnetic field of the next artifical magnetic field and check it by the same way as item (11). The positions of miss landing criteria with a microscope should be 2, 4, 8 and 10 (Fig. 1-3-5).

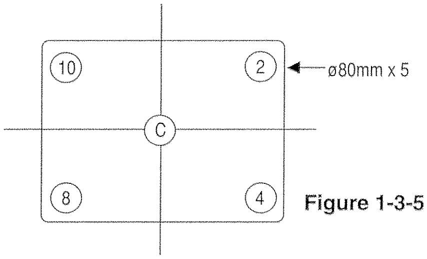


**Figure 1-3-5**

**Miss landing criteria**
The following conditions are defined as miss landing. Each color beam shines on the phosphor of the applied color and there are phosphor parts which are not luminous (shaded parts in the right figure) between the luminous parts and black matrix. Or, each color beam shines on the phosphor of not applied color.

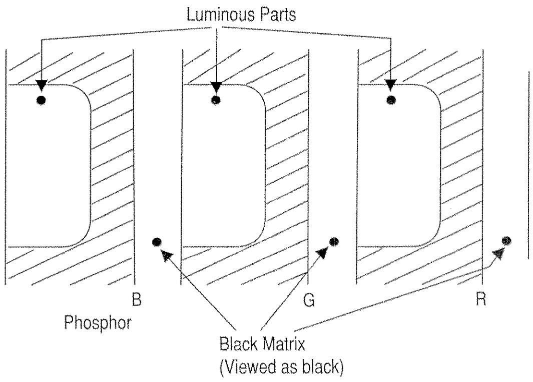
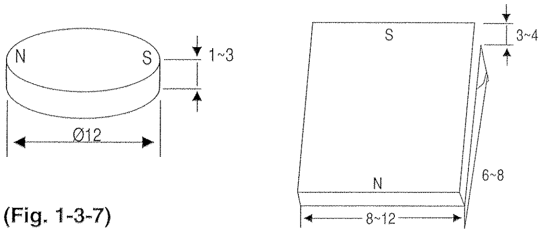


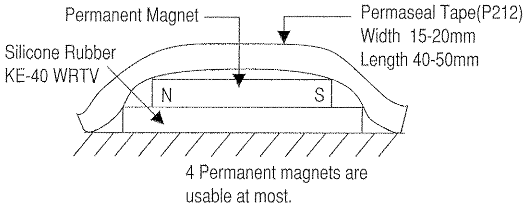
**Figure 1-3-6** Enlarged view of screen with microscope

(13) To improve the miss landing mentioned above, it's acceptable to stick the permanent magnet to CPT funnel (Fig. 1-3-7, Fig. 1-3-8).

Usage
Apply a silicone rubber KE-40 WRTV to the permanent magnet shown in the Fig., adhere it to the CPT funnel and then fix it with permasel tape P212.


N
S
1~3
Ø12
S
N
3~4
6~8
8~12

**(Fig. 1-3-7)**


Permanent Magnet
Permaseal Tape(P212)
Width 15-20mm
Length 40-50mm
Silicone Rubber
KE-40 WRTV
N
S
4 Permanent magnets are usable at most.

**(Fig. 1-3-8)**

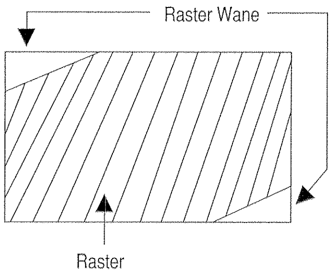
(14) Final purity criteria should satisfy the miss landing criteria.

(15) When delivering the sets, set CPT axis direction magnetic field to 0 Gauss and degauss is from outside.

**Table 3**
Artificial magnetic field setting list classified by destination

| DESTINATION | VERTICAL FIELD | HORIZONTAL FIELD |
|---|---|---|
| USA | 0.45 G | 0.3 G |
| CANADA | 0.54 G | 0.15 G |
| UNIVERSAL | 0.35 G | 0.3 G |
| PANAMA, HAWAII | 0.2 G | 0.3 G |
| TAIWAN | 0.22 G | 0.37 G |

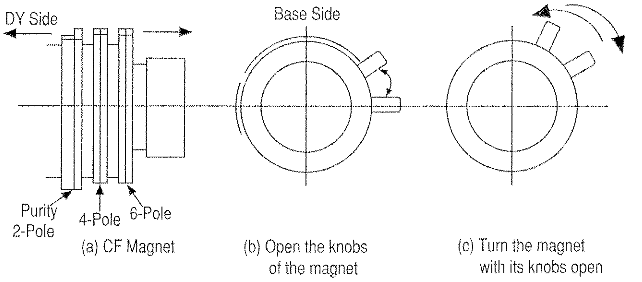
**Notes for pre-heat**
Before pre-heating, stick DY to CPT funnel and fix it so that the raster is perfect.


Raster Wane
Raster

If the raster is imperfect like the left figure, CPT neck is in danger of cracking because the beam may hit it.

## 1-4 Static Convergence Adjustment (Screen center part) (Except ITC CPT)

(1) Receive a cross-hatch signal and set Brightness to the center and Contrast to mimimum.


DY Side
Base Side
Purity 2-Pole
4-Pole
6-Pole
(a) CF Magnet
(b) Open the knobs of the magnet
(c) Turn the magnet with its knobs open

**(Fig. 1-4-1)**

(2) Open the knobs of 4-pole magnet (2 sheets) (Fig. 1-4-1 (b)) and match the blue/red vertical lines at the center of the screen as shown in Fig. 1-4-2 (a).

(3) Turn the 4-pole magnet with its knobs open (Fig. 1-4-1 (c)) and match the blue/red horizontal lines as shown in Fig. 1-4-2 (b).

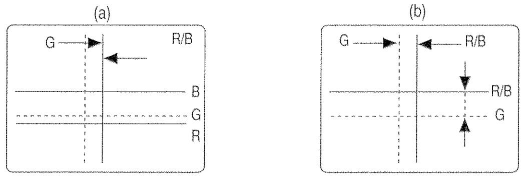

(a)
G
R/B
B
G
R
(b)
G
R/B
R/B
G

**Fig. 1-4-2**

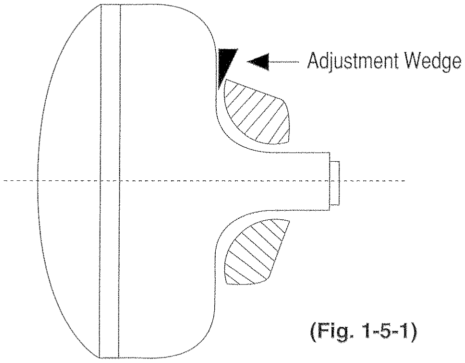
## 1-5 Dynamic convergence adjustment (Except ITC CPT type)

(1) Insert an adjustment wedge (temporary) between the top of DY opening and CPT funnel as shown in Fig. 1-5-1.
By inserting the wedge gradually, match the red and blue vertical lines at the top and bottom of the screen and also match the red and blue horizontal lines of both sides of the screen as shown in Fig. 1-5-2 (a).

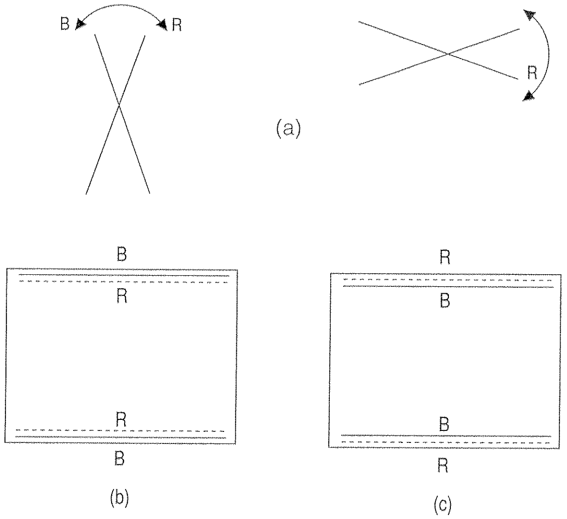
(2) Adjust by swinging in the right/left directions of DY while observing 6 and 12 horizontal lines of the screen and match the red and blue horizontal lines.
As shown in Fig. 1-5-2 (b), when the blue is outside from the red on CPT screen, insert the DY fixing wedge between the right-side DY viewed from the rear of CPT and CPT funnel.

(3) As shown in Fig. 1-5-2 (c), when the blue is inside from the red on CPT screen, insert the wedge between the left-side DY and CPT funnel.

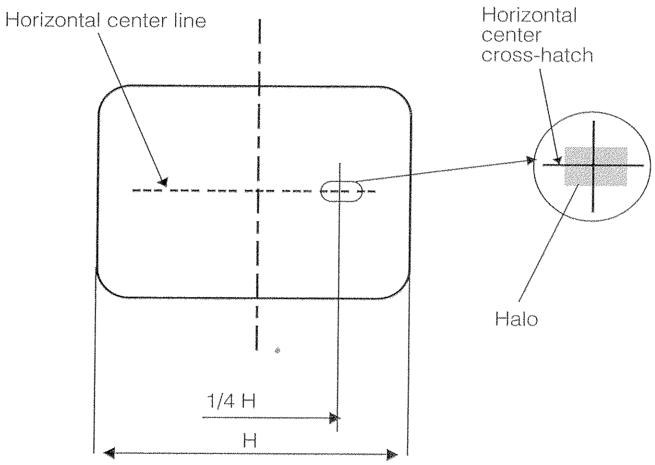
(4) Insert two DY fixing wedge with approx. 120 to the fixing wedge inserted in the item (2) or (3) and remove the adjustment wedge (temporary).
Use the DY fixing wedge after peeling off the tape.
After proper location, press and adhere it to the funnel.


Adjustment Wedge

**(Fig. 1-5-1)**



(Fig. 1-5-2)



**Note:** Adjust the point where the halo on the horizontal line disappears and the focus becomes best. For C053 only.

## 2. FOCUS ADJUSTMENT

| NO. | MODEL | CPT | CONDITION | Focus VR setting position |
|---|---|---|---|---|
| 1 | 27CX6B<br>C756 | A68KRQ58X<br>(HED-US) | • Receive a cross-hatch signal<br>• Contrast control: Maximum<br>• Sharpness control: Center<br>• Brightness control: Where the background is set | Turn the Focus VR gradually clockwise from the full counterclockwise. Then set it to the point where the focus of center vertical line from the screen center becomes best. |
| 2 | 27CX5B<br>C755<br>27CX25B<br>C750 | A68ADT25X01<br>(RCA) | • Same as above | Turn the Focus VR gradually clockwise from the full counterclockwise. Then set it to the point where the focus of center vertical line from the screen center becomes best. |
| 3 | C053 | A51KQN61X | • Receive a cross-hatch signal<br>• Contrast control: Maximum<br>• Sharpness control: Center<br>• Brightness control: Where the background is set | While observing the cross hatch signal at 1/4H on the center horizontal line on the screen, turn the focus adjustment VR gradually clockwise from full counterclockwise. Set it to the point where the focus at 1/4H is best. (note) Adjust the point where the halo on the horizontal line disappears and the focus becomes best. For C053 only. |

## IX. MATCHING CHECK WITH OTHER INSTRUMENTS

### 1. VIDEO INPUT TERMINAL MATCHING CHECK

**Adjustment Preparation**

(1) Input the video signal to the VIDEO 1 IN terminal. The video signal level should be within 1±0.2 Vp-p (75 ohm termination) with 100% white signal at this time.

(2) Input the audio signal to the AUDIO 1 IN terminal. The audio signal level should be 400m Vrms ± 20m Vrms. (Connect VCR or TV tuner.)

(3) Connect an audio AMP to the AUDIO OUT terminals.

**Adjustment Procedure**

(1) Check that the set receives signal when selecting the AVX mode, by press the AVX (FUNCTION) button of front panel control of set.

(2) When external input is performed, the video and audio should not be abnormal. The 100% white signal that RF input receives should be as bright as the video signal 1Vp-p (75 ohm termination). As for the sound, when the 100% modulation that RF input receive is 25KHZ, the sould level should be as much as external audio signal (400Vrms) level.

### 2. S-IN INPUT TERMINAL MATCHING CHECK (EXCEPT C053)

**Adjustment Preparation**

(1) Connect a video/chroma signal to S-IN terminal.

(2) Connect a sound signal to AUDIO input terminals.

**Adjustment Procedure**

(1) Check that the set receives signal at S-IN mode.

### 3. AUDIO OUT LEVEL CHECK

**Adjustment Preparation**

(1) Input the same audio signal as item 1(2) to AUDIO IN terminal (L). At this time, connect nothing to R terminal.

(2) Input the same audio signal as item 1(2) to AUDIO IN terminal (R). At this time, connect nothing to L terminal.

(3) Check that the normal sound is output from both sides of the speakers when signal in item (1) is input.

(4) Check that the normal sound is output from only the right (R) speaker when signal in item (2) is input.

**Adjustment Procedure**

(1) Check that the audio output of AUDIO AMP connected to AUDIO HiFi OUT terminals or monitor changes according to "VOLUME" of the set.

(2) Confirm that the output level of item (a) should be 1Vrms (2.8 Vp-p) ±20%.
(Above level is equivalent to VOLUME MAXIMUM 100% modulated signal input.)

## X. SAFETY CHECK

### 1. POLARITY CHECK

This check is performed according to UL standard requirement. There should be electricity between AC Power Cord and Chassis Earth.

## XI. MTS OPERATION CHECK

### 1. STEREO/SA BROADCAST RECEIVING CHECK

**Adjustment preparation**

(1) Set the TV set so that an MTS broadcast (STEREO/SAP) can be received.

STEREO 11
or SAP ST
or SA

(2) Set MTS mode to STEREO or SAP mode.
**Note:** To select between "STEREO/SAP", display sound setting of MTS mode and select AUDIO MENU.
(3) Set BALANCE to the center.

**Adjustment Procedure**

(1) When one of the MTS broadcast stereo SAP is received, check that "ST" or "SA" is displayed on the screen.
(2) Stereo broadcast receiving check
  (a) Select MTS mode and press ENTER button to display "STEREO" on the screen.
  (b) When only Lch signal is received, Lch sound comes out from the left speaker.
  (c) When only Rch signal is received, Rch sound comes out from the right speaker.
  (d) And when monaural signal is received, monaural sound comes out from both the right and left speakers.
(3) SAP broadcast receiving check
  (a) Select MTS mode. Press sound button to display "SAP" on screen.
  (b) SAP signal comes out from both of the right and left speakers.
  (c) When no SAP signal, the sound on "MAIN" side (refer to (3)) comes out.

**Note:** When the channel selection is performed or RECALL button is operated "ST" or "SA" is shown below the channel no. (approx. for 8 sec.)

### 2. MTS MODE CHECK

**Adjustment Preparation**

(1) Set the TV set so that an MTS broadcast (STEREO/SAP) can be received.
(2) Set BALANCE to the center.

**Adjustment Procedure**

(1) When "MTS MODE" is set to "MONO" mode, check that STEREO and MONO indication which have been ON are turned OFF and that monaural sound comes out from the right and left speakers.
(2) When "MTS MODE" is set to "STEREO" side, check that STEREO and MONO indication which have been OFF are turned ON and that STEREO and SA sound can be received.

### 3. STEREO SEPARATION CHECK

**Adjustment Preparation**

(1) Set the TV set so that an MTS broadcast (STEREO/SA) can be received.
(2) Set MTS MODE to "STEREO".
(3) Connect AUDIO OUT terminals L and R to an oscilloscope.

**Adjustment Procedure**

(1) When stereo L only signal (or R only signal) is received, check that the output level ratio of L CH and R CH is 15 dB or more.

Example:
When L only is received (100% modulation)

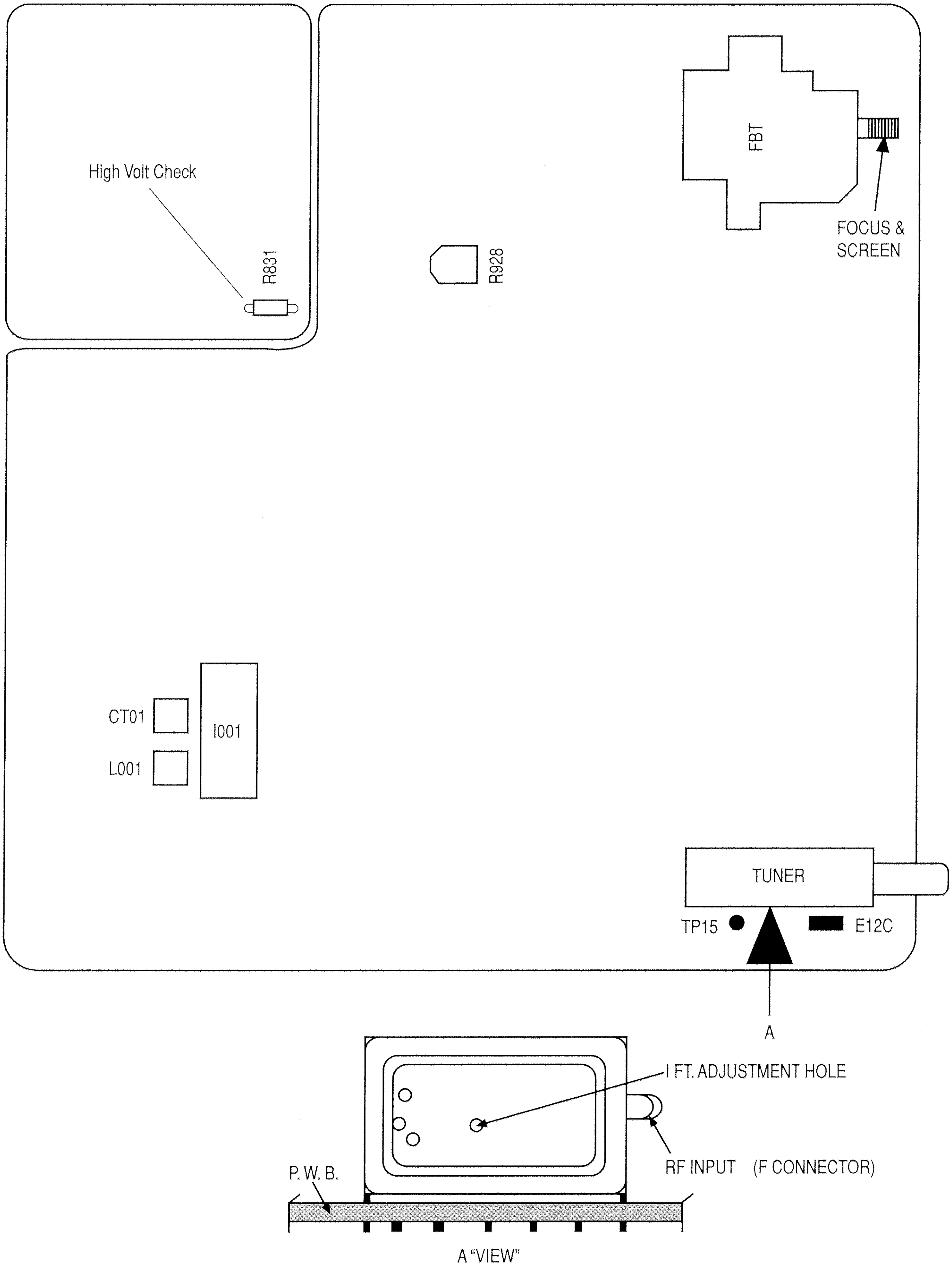
| CH | Output Level |
|---|---|
| L | 1.2 Vpp |
| R | 0.21 Vpp or less |

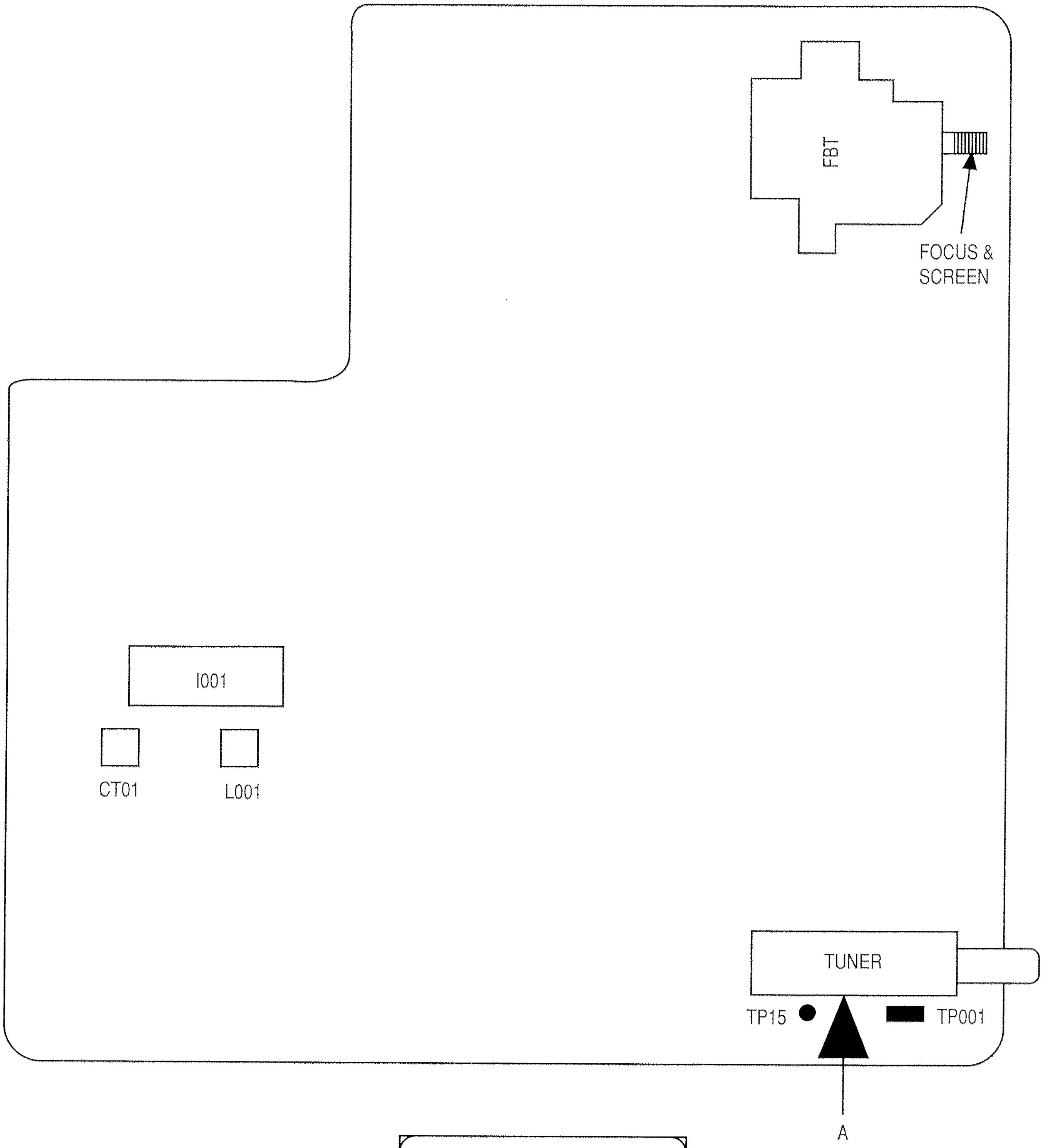
## XII. SETTING FOR DELIVERY

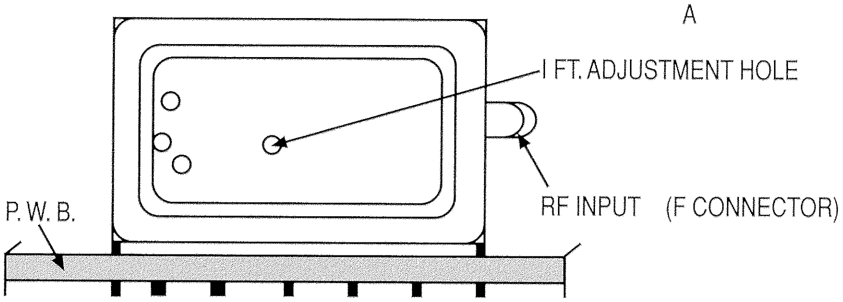
| NAME | SPECIFICATIONS BY MODELS | | |
|---|---|---|---|
| | C755/C756 | C750 | C053 |
| AIR/CABLE | AIR | AIR | AIR |
| RECEPTION CHANNEL | CH 03 | CH 03 | CH 03 |
| SOUND (VOLUME) | 10" ON-SCREEN DISPLAY | 10" ON-SCREEN DISPLAY | 10" ON-SCREEN DISPLAY |
| INPUT SELECT (AVX) | TV Mode | TV Mode | TV Mode |
| CONTRAST | Maximum | Maximum | Maximum |
| COLOR | Center | Center | Center |
| TINT | Center | Center | Center |
| BRIGHTNESS | Center | Center | Center |
| SHARPNESS | Center | Center | Center |
| WHITE CONTROL | COOL | COOL | COOL |
| BALANCE | Center | Center | — |
| BASS | Center | Center | — |
| TREBLE | Center | Center | — |
| MTS MODE | STEREO | STEREO | STEREO |
| LOUDNESS | OFF | OFF | — |
| INTERNAL SPEAKERS | ON | ON | ON |
| P IN P | OFF | — | — |
| CLOSED CAPTION | OFF | OFF | OFF |
| CLOSED CAPTION MODE | C.C. | C.C. | C.C. |
| CLOSED CAPTION CHANNEL | 1 | 1 | 1 |
| MENU LANGUAGE | ENGLISH | ENGLISH | ENGLISH |

## XIII. ADJUSTMENT POSITION LIST

### 1. M3LXU CHASSIS


High Volt Check
R831
R928
FBT
FOCUS &
SCREEN
CT01
L001
I001
TUNER
TP15
E12C
A
I FT. ADJUSTMENT HOLE
RF INPUT (F CONNECTOR)
P. W. B.
A "VIEW"


FBT
FOCUS &
SCREEN
I001
CT01
L001
TUNER
TP15
TP001
A

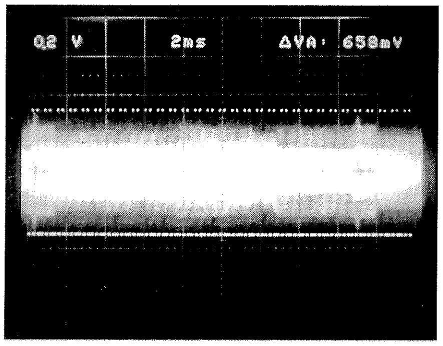

I FT. ADJUSTMENT HOLE
P. W. B.
RF INPUT (F CONNECTOR)

A "VIEW"

# WAVEFORMS AT EACH SECTIONS

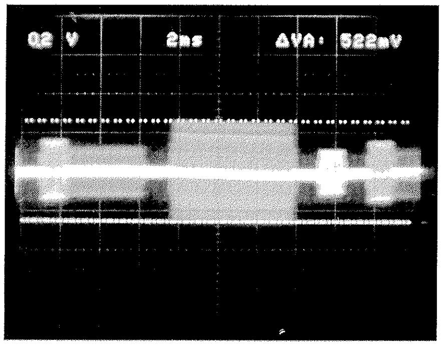
Numbers inside ◯ correspond to locations shown in the circuit diagram

①U101 Pin 7(IF Out)



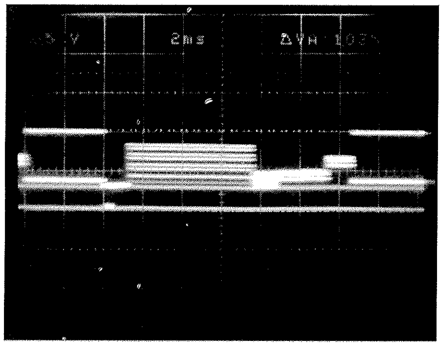
0.2V/div. 2ms/div.

②I501 Pin 3(C - In)/201 Pin 45(C - In )



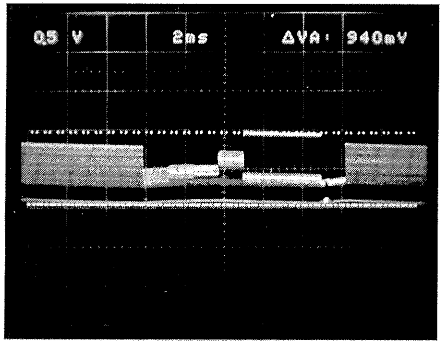
0.2V/div. 2ms/div.

③I301 Pin 12(C - In)/I201 Pin 43(C - In)



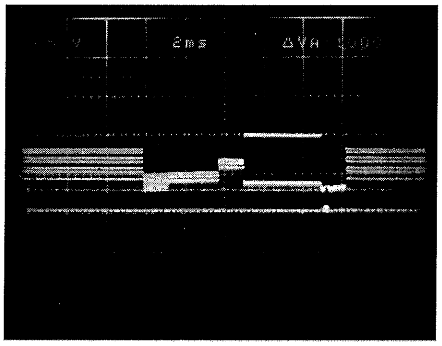
0.5V/div. 2ms/div.

④E301 Pin 10(C - In)/I201 Pin 45(C - In)



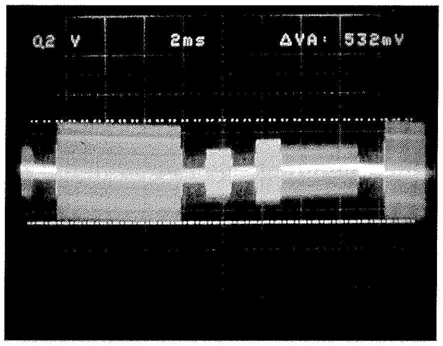
0.5V/div. 2ms/div.

⑤E301 Pin 8(Y - Out)/I201 Pin 37(TV - In)



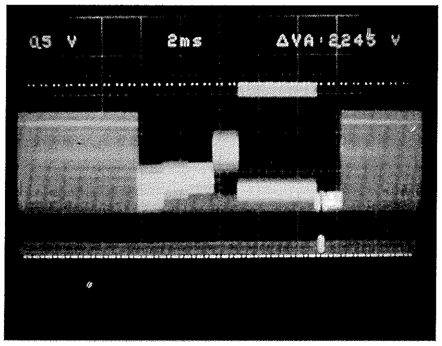
0.5V/div. 2ms/div.

⑥E301 Pin 6(C - Out)/I201 Pin 45(C - In)



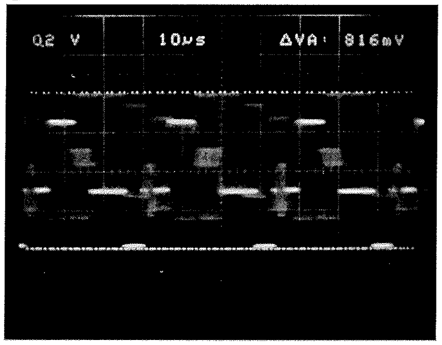
0.2V/div. 2ms/div.

⑦E301 Pin 4 V(TV)/Q241 Emitter



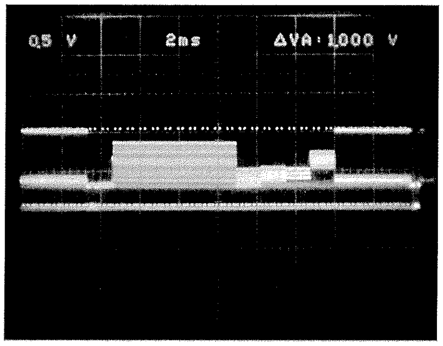
0.5V/div. 2ms/div.

⑧E301 Pin 2 V(AUX)/I201 Pin 39(AUX -In)



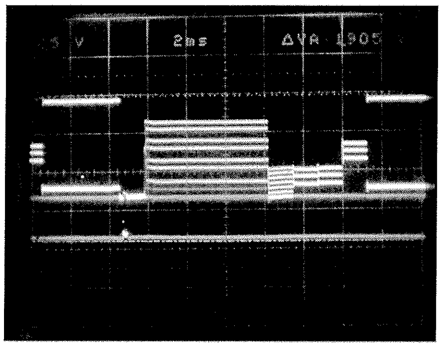
0.2V/div. 10μs/div.

⑨I301 Pin 3 Video Switch/Q242 Emitter



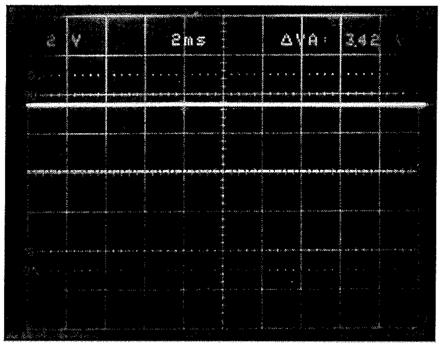
0.5V/div. 2ms/div.

⑩ I201 Pin 41 Video Out



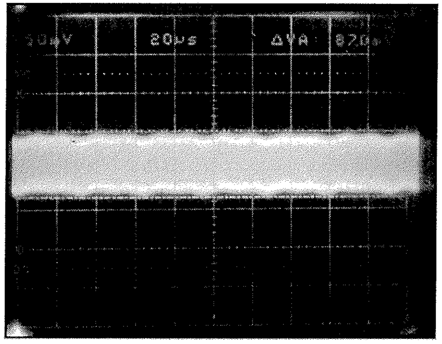
0.5V/div. 2ms/div.

⑪ I201 Pin 44 AFC Out



0.2V/div. 2ms/div.

⑫ I201 Pin 52 SIF In

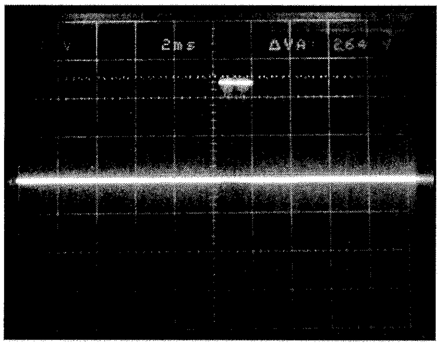


50mV/div. 20μs/div.

# WAVEFORMS AT EACH SECTIONS

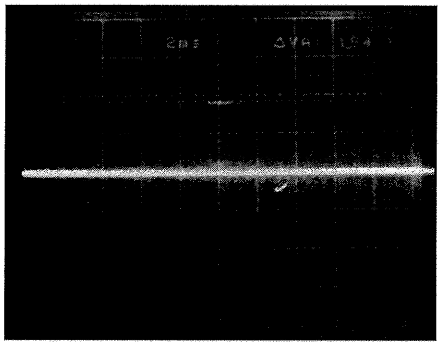
Numbers inside ○ correspond to locations shown in the circuit diagram

⑬ I201 Pin 14 OSD - BLK



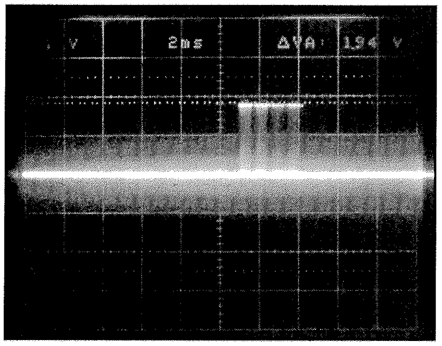
1V/div. 2ms/div.

⑭ I201 Pin 15 OSD - BLK R - In



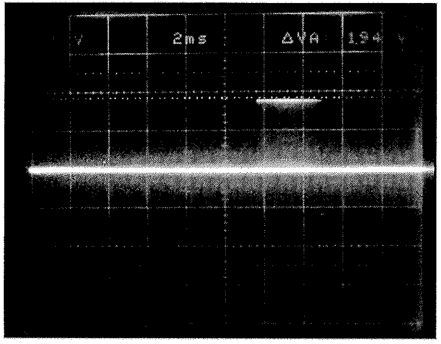
1V/div. 2ms/div.

⑮ I201 Pin 16 OSD - BLK G - In



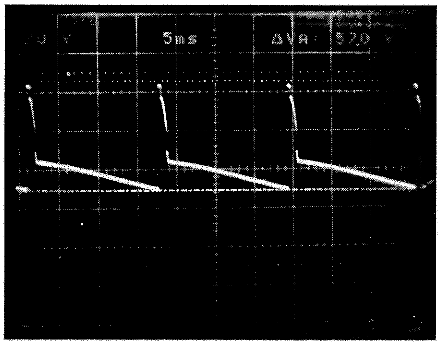
1V/div. 2ms/div.

⑯ I201 Pin 17 OSD - BLK B - In



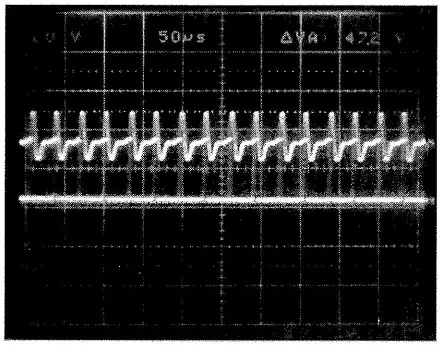
1V/div. 2ms/div.

⑰ I601 Pin 2 V - Out



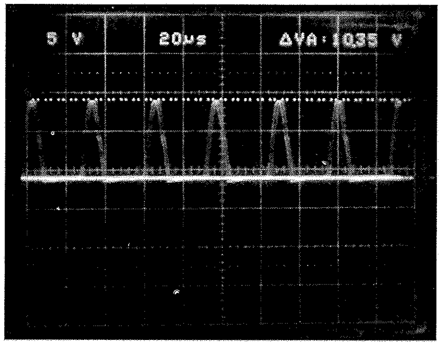
20V/div. 5ms/div.

⑱ Q701 Collector (Hor. Drive)



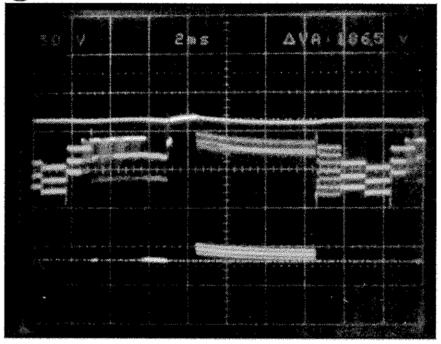
20V/div. 50μs/div.

⑲ Q702 Collector (H.O.T.)



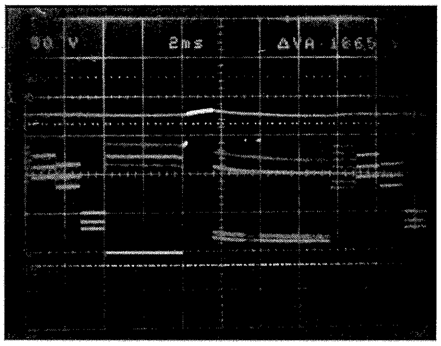
5V/div. 20μs/div.

⑳ Q801 Collector (R - Out)



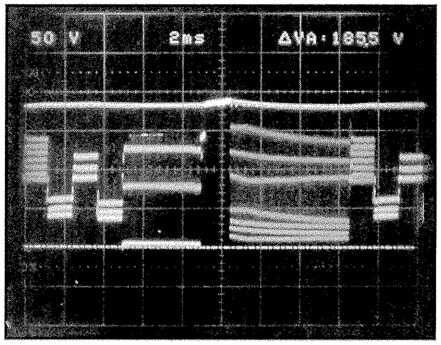
50V/div. 2ms/div.

㉑ Q802 Collector (G - Out)



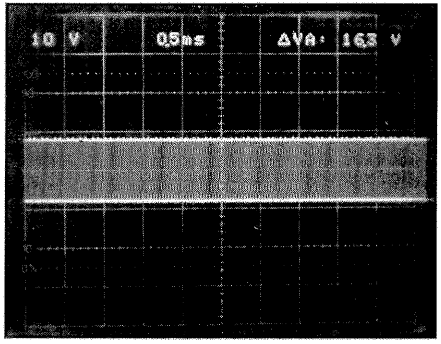
50V/div. 2ms/div.

㉒ Q803 Collector (B - Out)



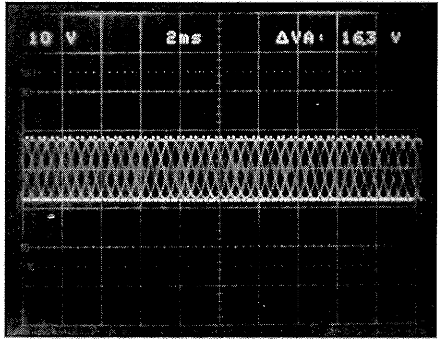
50V/div. 2ms/div.

㉓ I401 Pin 12 R Audio Out



10V/div. 0.5ms/div.

㉔ I401 Pin 12 L Audio Out



10V/div. 2ms/div.

# TROUBLESHOOTING

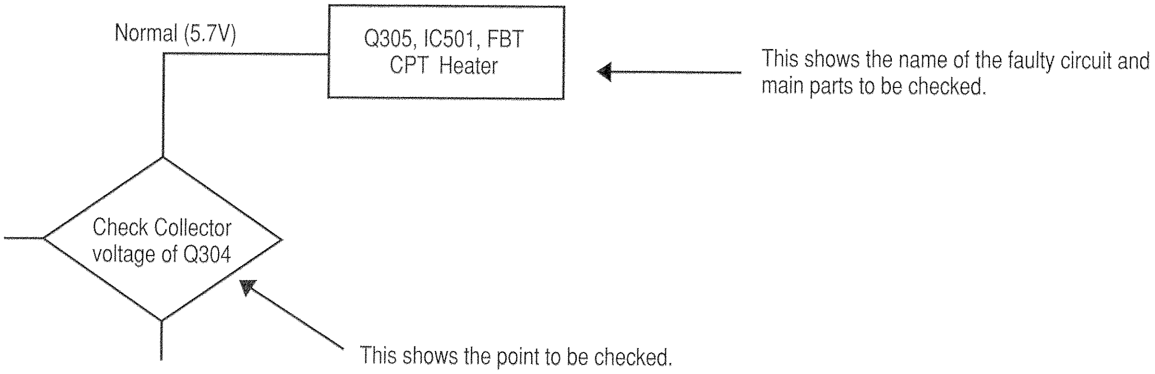
## PRODUCT SAFETY NOTE

The shaded and ⚠ marked components have special characteristics important to safety.
Read carefully the Product Safety Notice of each service manual. Don't degrade the safety of the receiver through improper servicing when replacing any of this components.

### HOW TO USE THE FLOW CHART

(1) The flow chart shows the following:

This shows the name of the faulty circuit and main parts to be checked.
This shows the point to be checked.


Normal (5.7V)
Q305, IC501, FBT CPT Heater
This shows the name of the faulty circuit and main parts to be checked.
Check Collector voltage of Q304
This shows the point to be checked.

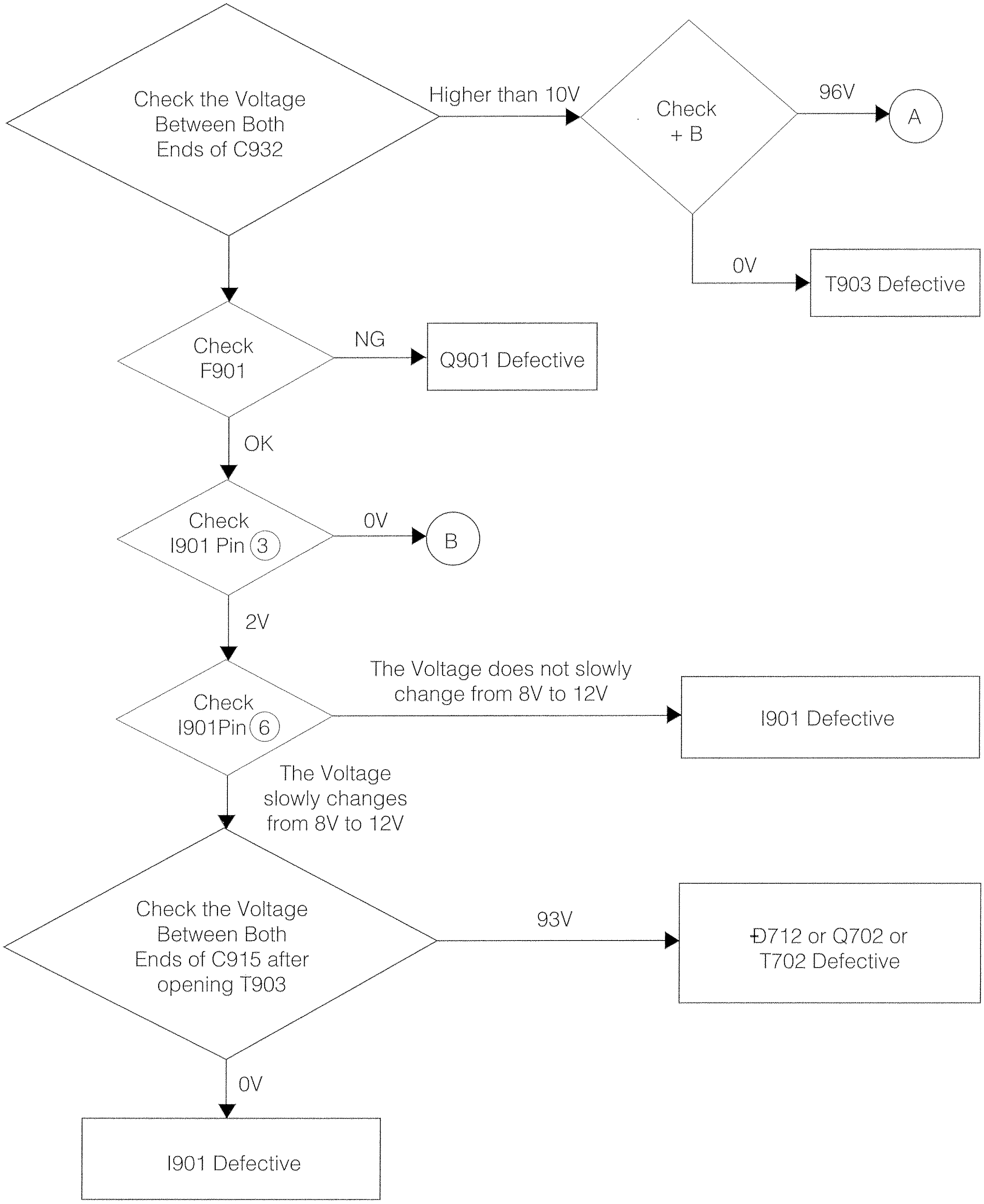
(2) The voltage shown in the chart may differ to some extent depending on the condition of the set and tester.

### PRECAUTION ON MAKING MEASUREMENTS AND ON HANDLING

1. When any parts become abnormally hot or there is a smell of burning, cut OFF the power immediately.
2. Do not make shorts between circuits or across terminals except for those specified.
3. When applying a signal for checking purposes, make connection in the alternate current system for any not specified.
4. When measuring the voltages of ICs and TRs, be careful to see that the lead bar of the tester does not touch any other terminal.
5. Measure the voltage correctly.
6. Measure the resistance over a small range.
7. Be sure to switch OFF the power when replacing parts.
8. Do not apply a soldering iron for a long time when replacing parts. (Use a solder-wick.)
9. Use an isolation transformer when troubleshooting.

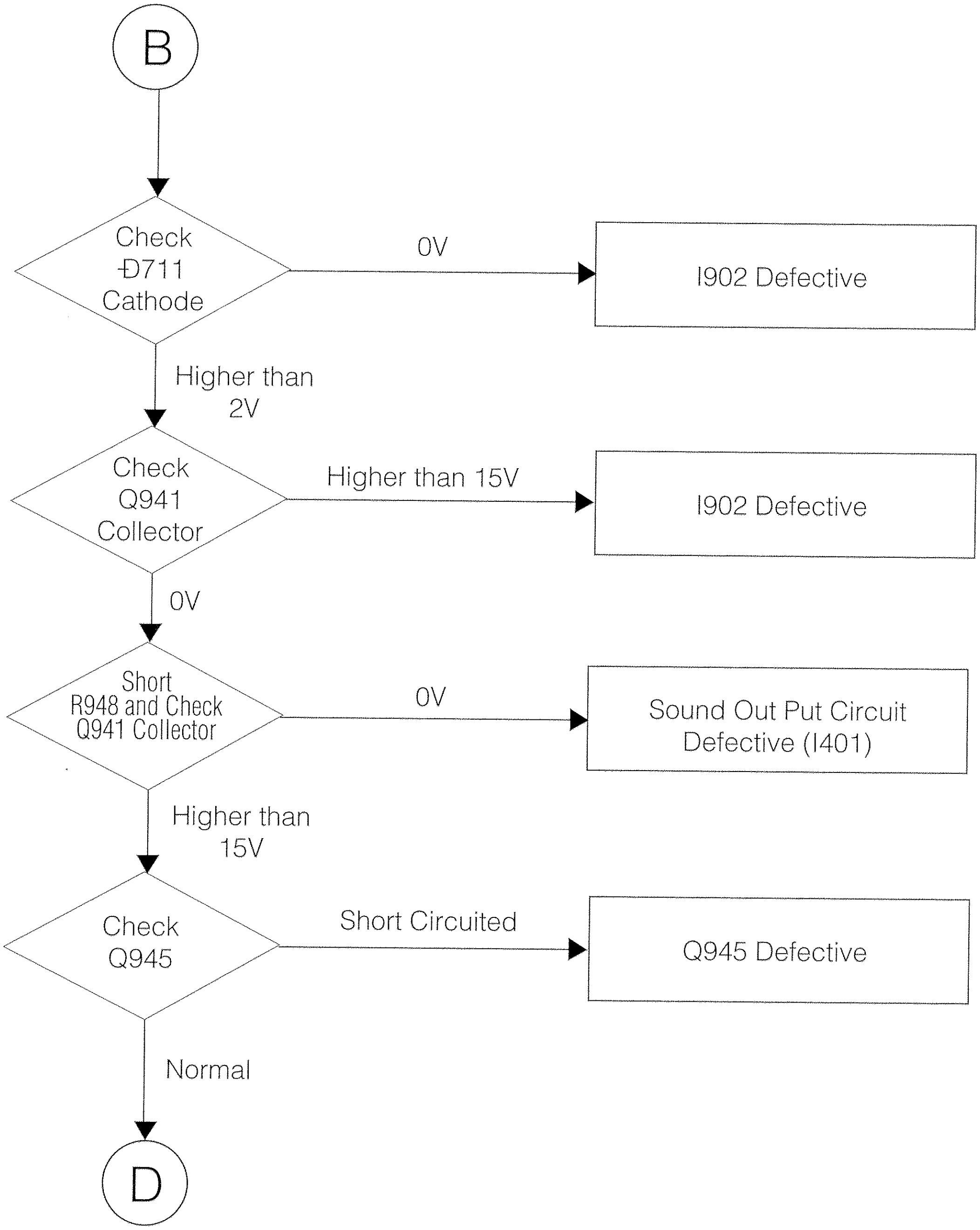
# M3LXU CHASSIS TROUBLESHOOTING

1. No Raster and Sound


Check the Voltage Between Both Ends of C932
Higher than 10V
Check + B
96V
A
0V
T903 Defective
Check F901
NG
Q901 Defective
OK
Check I901 Pin ③
0V
B
2V
Check I901Pin ⑥
The Voltage does not slowly change from 8V to 12V
I901 Defective
The Voltage slowly changes from 8V to 12V
Check the Voltage Between Both Ends of C915 after opening T903
93V
D712 or Q702 or T702 Defective
0V
I901 Defective

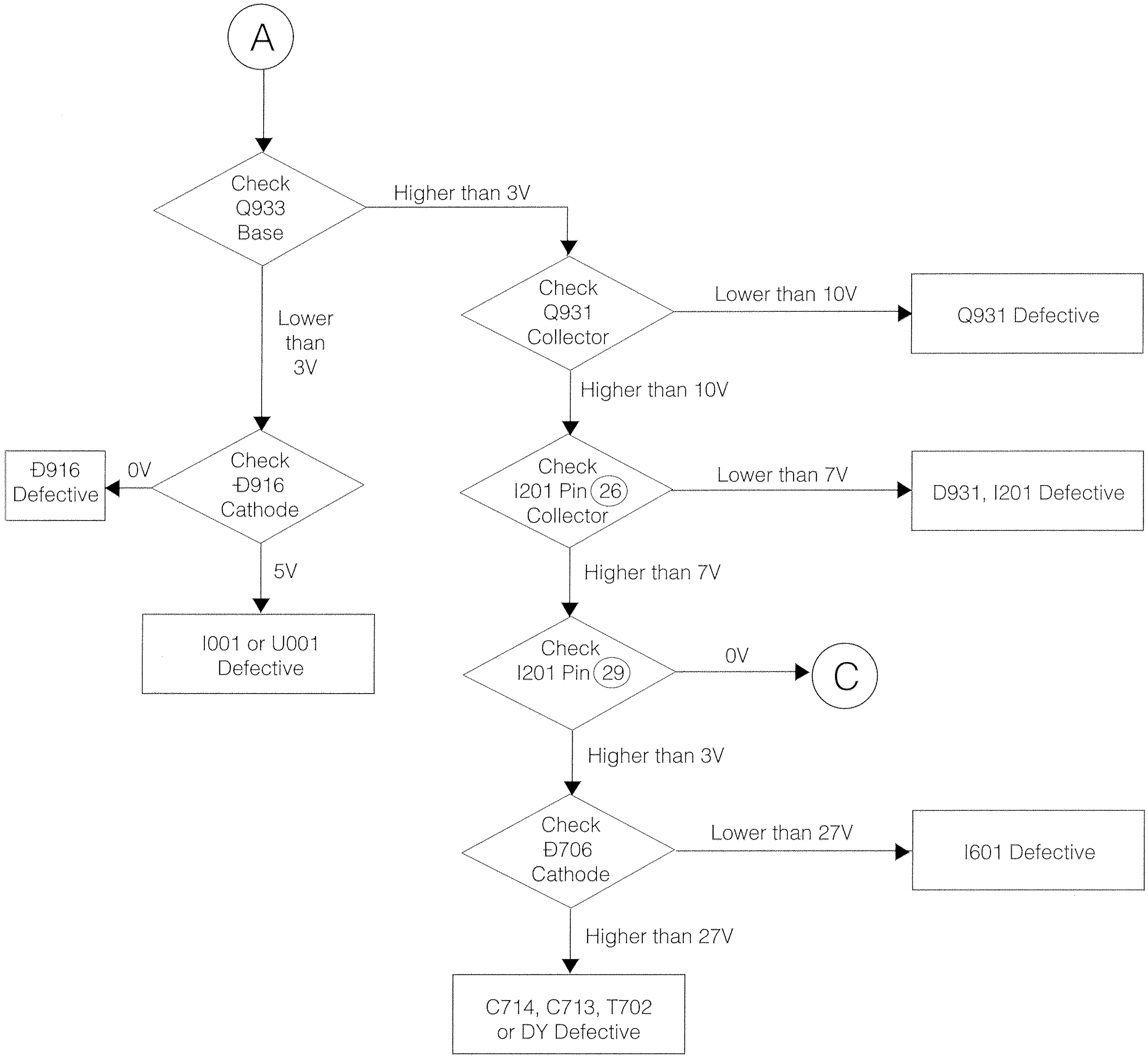
## M3LXU CHASSIS TROUBLESHOOTING

1. No Raster and Sound


B
Check D711 Cathode
0V
I902 Defective
Higher than 2V
Check Q941 Collector
Higher than 15V
I902 Defective
0V
Short R948 and Check Q941 Collector
0V
Sound Out Put Circuit Defective (I401)
Higher than 15V
Check Q945
Short Circuited
Q945 Defective
Normal
D

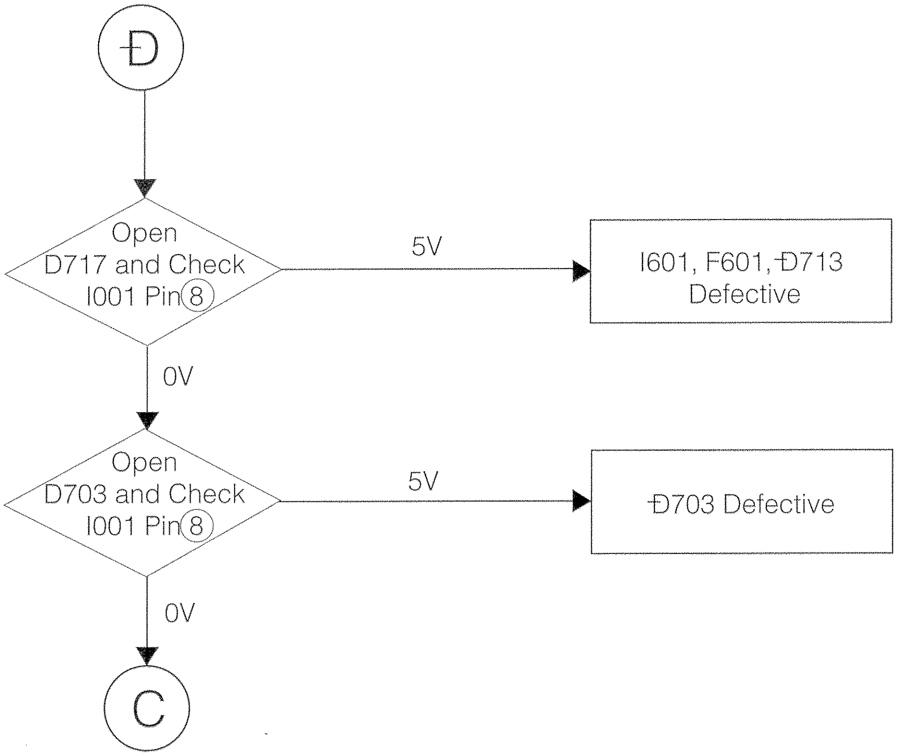
# M3LXU CHASSIS TROUBLESHOOTING

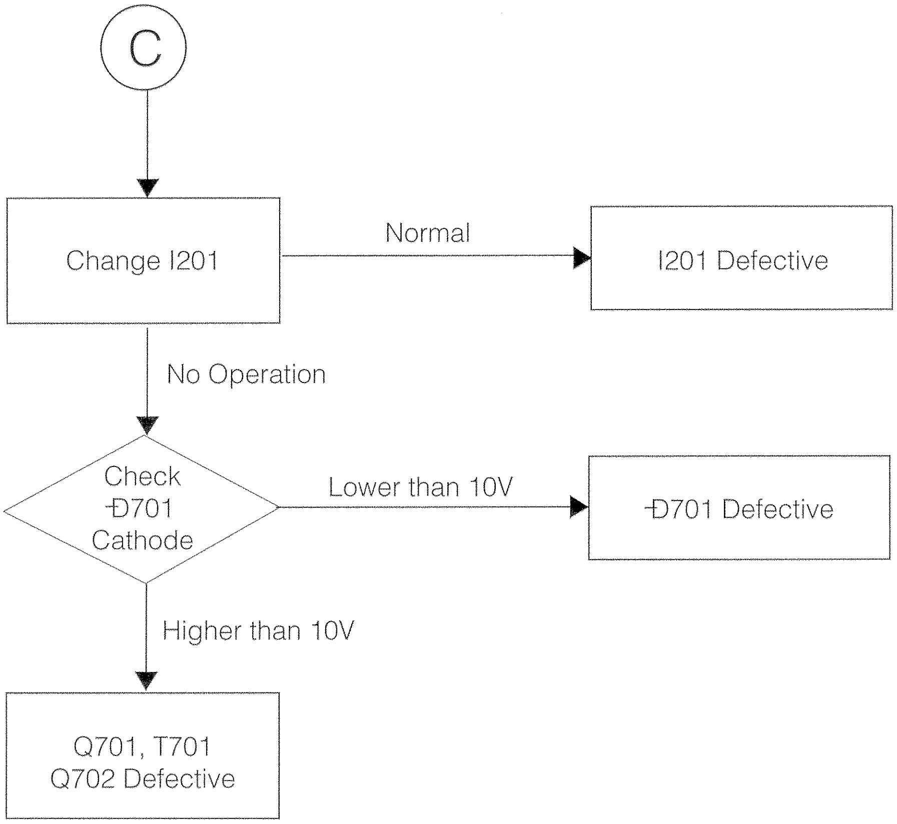
1. No Raster and Sound


A
Check Q933 Base
Higher than 3V
Lower than 3V
Check Q931 Collector
Lower than 10V
Q931 Defective
Higher than 10V
Ð916 Defective
0V
Check Ð916 Cathode
5V
I001 or U001 Defective
Check I201 Pin (26) Collector
Lower than 7V
D931, I201 Defective
Higher than 7V
Check I201 Pin (29)
0V
C
Higher than 3V
Check Ð706 Cathode
Lower than 27V
I601 Defective
Higher than 27V
C714, C713, T702 or DY Defective

# M3LXU CHASSIS TROUBLESHOOTING

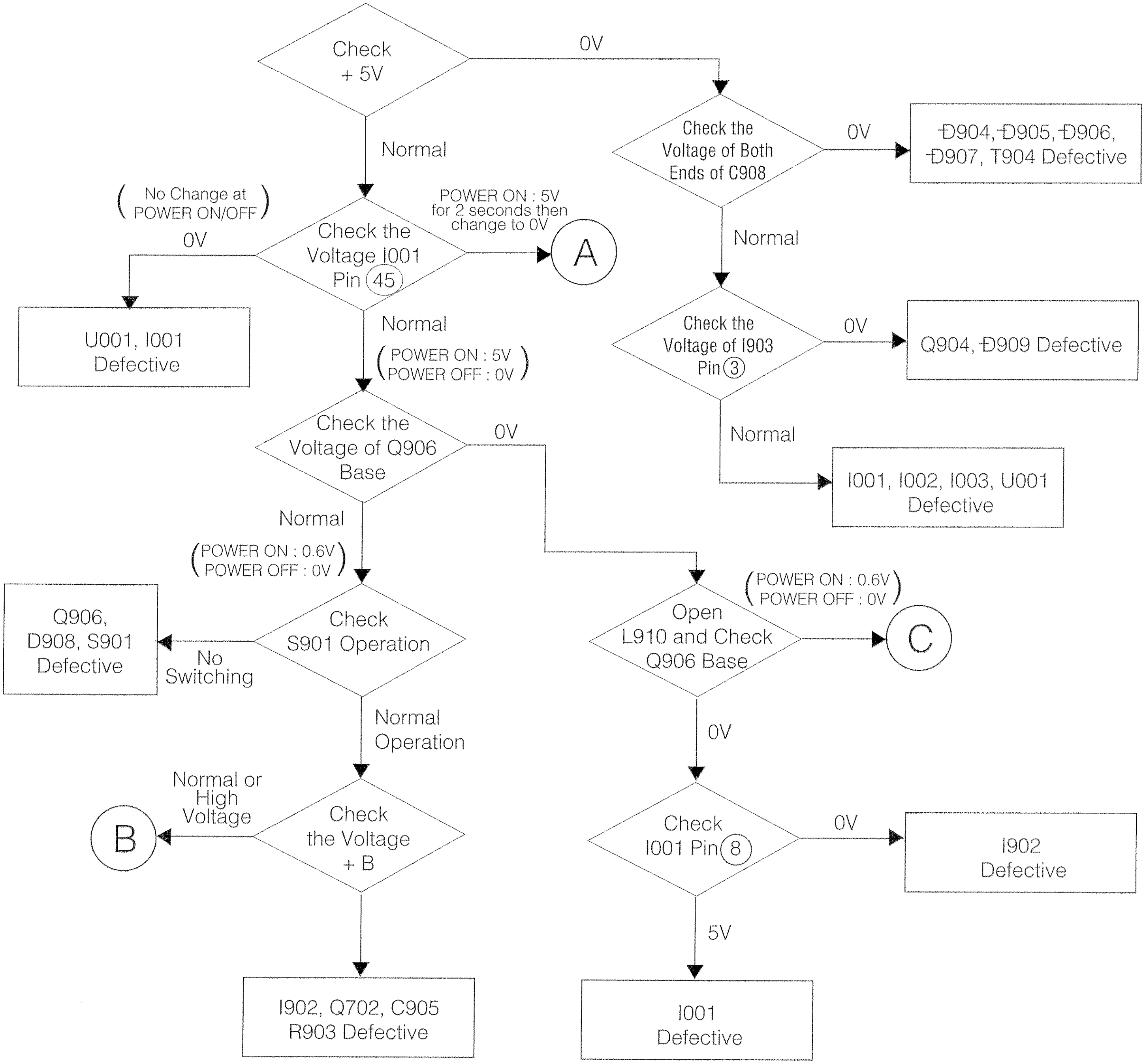
1. No Raster and Sound


Đ
Open D717 and Check I001 Pin ⑧
5V
I601, F601, Đ713 Defective
0V
Open D703 and Check I001 Pin ⑧
5V
Đ703 Defective
0V
C


C
Change I201
Normal
I201 Defective
No Operation
Check Đ701 Cathode
Lower than 10V
Đ701 Defective
Higher than 10V
Q701, T701 Q702 Defective

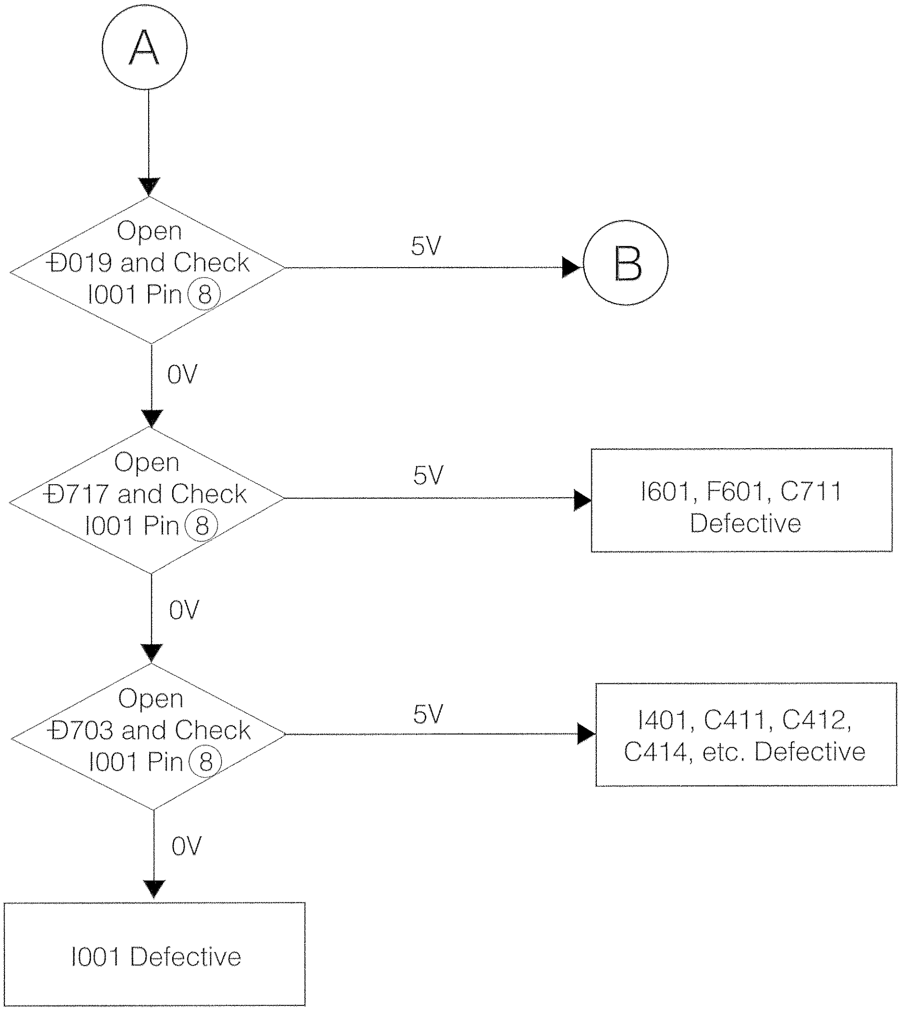
## M3XU (20V) CHASSIS TROUBLESHOOTING

1. No Raster and Sound


Check + 5V
0V
Normal
Check the Voltage of Both Ends of C908
0V
Đ904, Đ905, Đ906, Đ907, T904 Defective
Normal
Check the Voltage of I903 Pin ③
0V
Q904, Đ909 Defective
Normal
I001, I002, I003, U001 Defective
(No Change at POWER ON/OFF)
0V
Check the Voltage I001 Pin ㊺
POWER ON : 5V for 2 seconds then change to 0V
A
U001, I001 Defective
Normal
(POWER ON : 5V POWER OFF : 0V)
Check the Voltage of Q906 Base
0V
Normal
(POWER ON : 0.6V POWER OFF : 0V)
Check S901 Operation
No Switching
Q906, D908, S901 Defective
Normal Operation
Open L910 and Check Q906 Base
(POWER ON : 0.6V POWER OFF : 0V)
C
0V
Check the Voltage + B
Normal or High Voltage
B
I902, Q702, C905 R903 Defective
Check I001 Pin ⑧
0V
I902 Defective
5V
I001 Defective

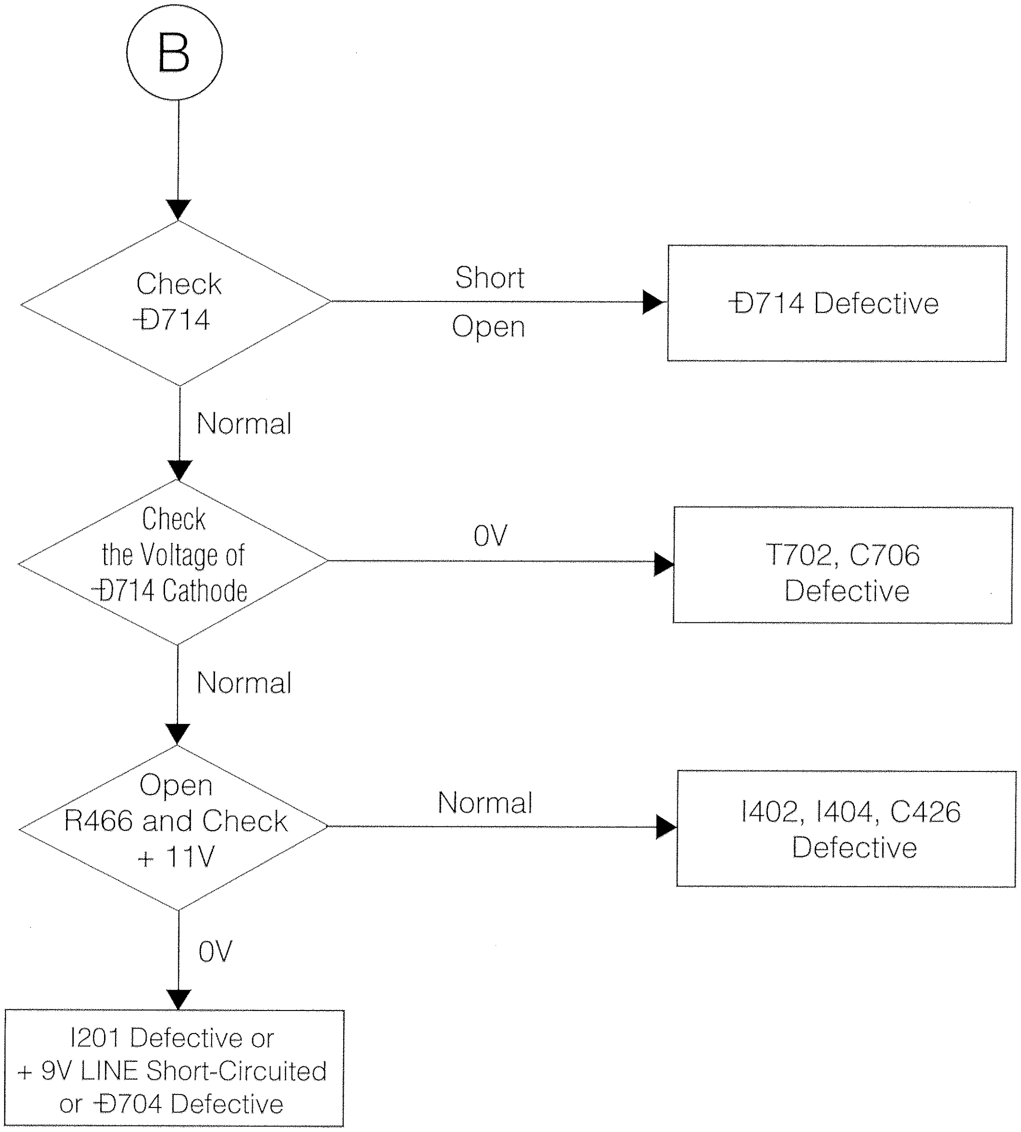
## M3XU (20V CHASSIS TROUBLESHOOTING

1. No Raster and Sound


A
Open Đ019 and Check I001 Pin ⑧
5V
B
0V
Open Đ717 and Check I001 Pin ⑧
5V
I601, F601, C711 Defective
0V
Open Đ703 and Check I001 Pin ⑧
5V
I401, C411, C412, C414, etc. Defective
0V
I001 Defective

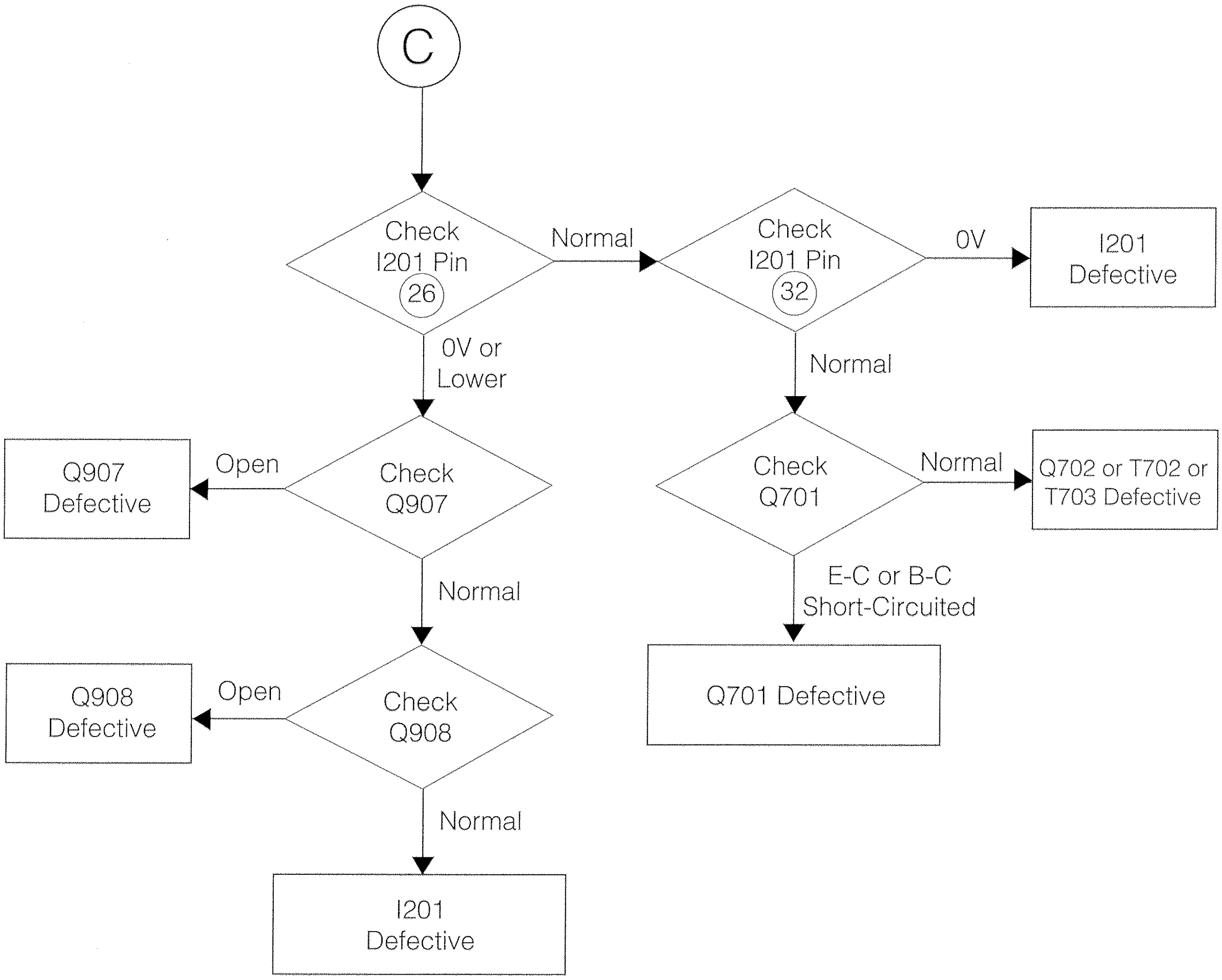
## M3XU (20V) CHASSIS TROUBLESHOOTING

1. No Raster and Sound


B
Check Ð714
Short
Open
Ð714 Defective
Normal
Check the Voltage of Ð714 Cathode
0V
T702, C706 Defective
Normal
Open R466 and Check + 11V
Normal
I402, I404, C426 Defective
0V
I201 Defective or + 9V LINE Short-Circuited or Ð704 Defective

# M3XU (20V) CHASSIS TROUBLESHOOTING

1. No Raster and Sound


C
Check I201 Pin ㉖
Normal
Check I201 Pin ㉜
0V
I201 Defective
0V or Lower
Normal
Q907 Defective
Open
Check Q907
Check Q701
Normal
Q702 or T702 or T703 Defective
Normal
E-C or B-C Short-Circuited
Q908 Defective
Open
Check Q908
Q701 Defective
Normal
I201 Defective

## REPLACEMENT PARTS LIST

**PRODUCT SAFETY NOTE:** Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

### ABBREVIATIONS

**Capacitors:**
CD: Ceramic Disc
PF: Polyester Film
EL: Electrolytic
PP: Polypropylene
PR: Paper
TA: Tantalum
TM: Trimmer

**Resistors:**
CF: Carbon Film
CC: Carbon Composition
MF: Metal Oxide Film
VR: Variable Resistor
WW: Wire Wound
FR: Fuse Resistor
MG: Metal Glaze

**Semiconductors:**
TR: Transistor
DI: Diode
ZD: Zener Diode
VA: Varistor
TH: Thermistor
IC: Integrated Circuit

| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| | | CAPACITORS |
| C001 | 0800072R | EL 470UF-M 6.3V |
| C002 | 0800005R | EL 2.2UF-M 50V |
| C003 | 0880057R | PF 0.1UF-KEB 50V |
| C004 | 0800047R | EL 100UF-M 6.3V |
| C005 | 0880048R | PF 0.022UF-KEB 50V |
| C006 | 0880051R | PF 0.033UF-KEB 50V |
| C007 | 0890089R | CD 1500PF-K 50V |
| C008 | 0890089R | CD 1500PF-K 50V |
| C009 | 0880057R | PF 0.1UF-KEB 50V |
| C010 | 0800003R | EL 1.0UF-M 50V |
| C011 | 0890121R | CD 33PF-J CH 50V |
| C012 | 0890121R | CD 33PF-J CH 50V |
| C013 | 0890118R | CD 22PF-J CH 50V |
| C014 | 0890114R | CD 10PF-D CH 50 V |
| C015 | 0890087R | CD 1000PF-K 50V |
| C016 | 0248692R | CD 220PF-JB SL 50V |
| C017 | 0890074R | CD 100PF-J 50V |
| C018 | 0890074R | CD 100PF-J 50V |
| C019 | 0890074R | CD 100PF-J 50V |
| C020 | 0800009R | EL 4.7UF-M 25V |
| C021 | 0800009R | EL 4.7UF-M 25V(C756/C755/C750) |
| C022 | 0800009R | EL 4.7UF-M 25V(C756/C755/C750) |
| C023 | 0800009R | EL 4.7UF-M 25V(C756/C755/C750) |
| C025 | 0800015R | EL 10UF-M 16V |
| C026 | 0248700R | CD 680PF-J SL 50V |
| C027 | 0890074R | CD 100PF-J 50V(C756/C755/C750) |
| C028 | 0890074R | CD 100PF-J 50V(C756/C755/C750) |
| C030 | 0890074R | CD 100PF-J 50V |
| C031 | 0890074R | CD 100PF-J 50V(C756/C755/C750) |
| C040 | 0880057R | PF 0.1UF-KEB 50V(C756/C755/C750) |
| C040 | 0890087R | CD 1000PF-K 50V(C053) |
| C051 | 0890079R | CD 270PF-K 50V |
| C052 | 0890074R | CD 100PF-J 50V |
| C053 | 0890083R | CD 470PF-K 50V |
| C060 | 0880057R | PF 0.1UF-KEB 50V |
| C100 | 0800015R | EL 10UF-M 16V |
| C101 | 0800047R | EL 100UF-M 6.3V |
| C102 | 0244105R | CD 2200PF-K 50V TAPE |
| C103 | 0800082F | EL 1000UF-M 16V |
| C104 | 0244141R | CD 0.01UF-KB B 50V |
| C105 | 0244141R | CD 0.01UF-KB B 50V |
| C203 | 0880053R | PF 0.047UF-KEB 50V |
| C204 | 0890089R | CD 1500PF-K 50V |
| C205 | 0890089R | CD 1500PF-K 50V |
| C206 | 0890089R | CD 1500PF-K 50V |
| C207 | 0890069R | CD 47PF-J 50V(C756/C755/C750) |
| C240 | 0890067R | CD 33PF-J 50V |
| C241 | 0890067R | CD 33PF-J 50V |
| C245 | 0880044R | PF 0.01UF-KEB 50V |
| C248 | 0800001R | EL 0.47UF-M 50V (SME) |
| C251 | 0890083R | CD 470PF-K 50V(C053) |
| C290 | 0880048R | PF 0.022UF-KEB 50V(C053) |
| C301 | 0800015R | EL 10UF-M 16V(C750) |
| C301A | 0800015R | EL 10UF-M 16V(C756/C755) |
| C303 | 0244141R | CD 0.01UF-KB B 50V(C756/C755/50) |
| C304 | 0800005R | EL 2.2UF-M 50V(C053) |
| C305 | 0800005R | EL 2.2UF-M 50V(C756/C755/C750) |
| C305 | 0800015R | EL 10UF-M 16V(C053) |
| C306 | 0800015R | EL 10UF-M 16V(C756/C755/C750) |
| C330 | 0880057R | PF 0.1UF-KEB 50V(C756/C755/C750) |
| C331 | 0800015R | EL 10UF-M 16V(C756/C755/C750) |
| C331 | 0880057R | PF 0.1UF-KEB 50V(C053) |
| C336 | 0890087R | CD 1000PF-K 50V(C756/C755/C750) |
| C401 | 0880044R | PF 0.01UF-KEB 50V(C756/C755/C750) |
| C402 | 0880044R | PF 0.01UF-KEB 50V |
| C403 | 0800012R | EL 4.7UF-M 50V(C756/C755/C750) |
| C404 | 0800012R | EL 4.7UF-M 50V(C756/C755/C750) |
| C405 | 0800047R | EL 100UF-M 6.3V |
| C406 | 0244105R | CD 2200PF-K 50V TAPE |
| C407 | 0800059R | EL 220UF-M 25V |
| C408 | 0244105R | CD 2200PF-K 50V TAPE |
| C409 | 0800059R | EL 220UF-M 25V |
| C410 | 0800059R | EL 220UF-M 25V |
| C411 | 0800075F | EL 470UF-M 25V |
| C412 | 0800075F | EL 470UF-M 25V |
| C413 | 0880057R | PF 0.1UF-KEB 50V |
| C414 | 0800075F | EL 470UF-M 25V |
| C415 | 0880057R | PF 0.1UF-KEB 50V |
| C416 | 0800047R | EL 100UF-M 6.3V |
| C417 | 0800016R | EL 10UF-M 25V |
| C418 | 0800041R | EL 47UF-M 16V |
| C419 | 0800074N | EL 470UF-M 16V |
| C422 | 0800041R | EL 47UF-M 16V |
| C423 | 0800015R | EL 10UF-M 16V |
| C424 | 0253942R | EL 0.22UF-M 50V |
| C425 | 0880048R | PF 0.022UF-KEB 50V |
| C426 | 0800058R | EL 220UF-M 16V |
| C428 | 0800003R | EL 1.0UF-M 50V |
| C429 | 0800015R | EL 10UF-M 16V |
| C430 | 0253942R | EL 0.22UF-M 50V |
| C431 | 0880048R | PF 0.022UF-KEB 50V |
| C438 | 0800042R | EL 47UF-M 25V |
| C439 | 0800042R | EL 47UF-M 25V |
| C440 | 0800001R | EL 0.47UF-M 50V (SME) |
| C441 | 0800009R | EL 4.7UF-M 25V |
| C442 | 0880057R | PF 0.1UF-KEB 50V |
| C443 | 0880053R | PF 0.047UF-KEB 50V |
| C444 | 0800101R | EL 0.1UF-M 50V |
| C445 | 0800003R | EL 1.0UF-M 50V |
| C446 | 0800009R | EL 4.7UF-M 25V |
| C447 | 0880057R | PF 0.1UF-KEB 50V |
| C448 | 0800023R | EL 22UF-M 16V |
| C450 | 0800003R | EL 1.0UF-M 50V |
| C451 | 0800003R | EL 1.0UF-M 50V |
| C452 | 0800003R | EL 1.0UF-M 50V |
| C453 | 0292712F | TA 3.3UF-K 16V |
| C454 | 0292714F | TA 10UF-K 16V |
| C455 | 0800003R | EL 1.0UF-M 50V |
| C456 | 0800003R | EL 1.0UF-M 50V |
| C457 | 0800015R | EL 10UF-M 16V |
| C458 | 0800015R | EL 10UF-M 16V |
| C460 | 0800015R | EL 10UF-M 16V |
| C462 | 0800009R | EL 4.7UF-M 25V |
| C463 | 0800009R | EL 4.7UF-M 25V |
| C471 | 0800009R | EL 4.7UF-M 25V |
| C472 | 0800009R | EL 4.7UF-M 25V |

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| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| C473 | 0890089R | CD 1500PF-K 50V |
| C474 | 0890089R | CD 1500PF-K 50V |
| C503 | 0800003R | EL 1.0UF-M 50V |
| C504 | 0800003R | EL 1.0UF-M 50V |
| C505 | 0800015R | EL 10UF-M 16V |
| C506 | 0800003R | EL 1.0UF-M 50V(C053) |
| C506 | 0800009R | EL 4.7UF-M 25V(C756/C755/C750) |
| C507 | 0880057R | PF 0.1UF-KEB 50V |
| C508 | 0800003R | EL 1.0UF-M 50V(C053) |
| C508 | 0800009R | EL 4.7UF-M 25V(C756/C755/C750) |
| C509 | 0244105R | CD 2200PF-K 50V TAPE |
| C510 | 0800001R | EL 0.47UF-M 50V (SME) |
| C511 | 0890114R | CD 10PF-D CH 50 V |
| C512 | 0880048R | PF 0.022UF-KEB 50V |
| C513 | 0800001R | EL 0.47UF-M 50V (SME) |
| C515 | 0880057R | PF 0.1UF-KEB 50V |
| C516 | 0880057R | PF 0.1UF-KEB 50V |
| C517 | 0880057R | PF 0.1UF-KEB 50V |
| C518 | 0244105R | CD 2200PF-K 50V TAPE |
| C519 | 0800049R | EL 100UF-M 16V |
| C520 | 0244105R | CD 2200PF-K 50V TAPE |
| C521 | 0800074N | EL 470UF-M 16V |
| C523 | 0244105R | CD 2200PF-K 50V TAPE |
| C524 | 0800082F | EL 1000UF-M 16V |
| C525 | 0800005R | EL 2.2UF-M 50V |
| C526 | 0244505R | CD 0.0022UF-K 500V |
| C527 | 0800074N | EL 470UF-M 16V |
| C550 | 0244141R | CD 0.01UF-KB B 50V(C756/C755/C750) |
| C551 | 0800049R | EL 100UF-M 16V |
| C553 | 0244141R | CD 0.01UF-KB B 50V(C756/C755/C750) |
| C554 | 0244141R | CD 0.01UF-KB B 50V(C756/C755/C750) |
| C555 | 0244141R | CD 0.01UF-KB B 50V |
| C601 | 0880044R | PF 0.01UF-KEB 50V |
| C602 | 0800005R | EL 2.2UF-M 50V |
| C603 | 0800015R | EL 10UF-M 16V(C756/C755/C750) |
| C604 | 0890071R | CD 56PF-J 50V(C756/C755/C750) |
| C604 | 0890078R | CD 220PF-K 50V(C053) |
| C606 | 0800052R | EL 100UF-M 35V |
| C609 | 0800082F | EL 1000UF-M 16V(C053) |
| C609 | 0800087F | EL 2200UF-M 16V(C756/C755/C750) |
| C610 | 0880048R | PF 0.022UF-KEB 50V(C756/C755/C750) |
| C610 | 0880057R | PF 0.1UF-KEB 50V(C053) |
| C611 | 279859 | PF FILM 0.1MF-K 200V(C756/C755/C750) |
| C612 | 0880057R | PF 0.1UF-KEB 50V(C756/C755/C750) |
| C612 | 0880059R | PF 0.15UF-KEB 50V(C053) |
| C613 | 0800005R | EL 2.2UF-M 50V |
| C702 | 0800015R | EL 10UF-M 16V |
| C705 | 0255524F | EL 4.7MF-M 250V(KME)(C756/C755/C750) |
| C705 | 0255524N | EL 4.7MF-M 250V(C053) |
| C706 | 0800074N | EL 470UF-M 16V |
| C707 | 0243508F | CD 390PF(B) 500WV(C756/C755/C750) |
| C707 | 0243508R | CD 390PF-K 500V(C053) |
| C710 | 0244501R | CD 1000PF-K 500V |
| C711 | 0800076F | EL 470UF-M 35V |
| ⚠ C713 | 0262424F | PP 7500PF-J 1.8 KV(C053) |
| ⚠ C713 | 0262429F | PP 12000PF-J 1800V(C756) |
| ⚠ C713 | 0262432F | PP 15000PF-J 1800V(C755/C750) |
| ⚠ C714 | 244716 | CD 220P-K 2KV(C755/C750) |
| ⚠ C714 | 244724 | CD 820P-K 2KV(C053) |
| ⚠ C714 | 244727 | CD 1500PF-K 2KV(C756) |
| C715 | 0243512R | CD 820PF-K 500V TAPE(C756/C755/C750) |
| C716 | 0262799F | PF 0.51UF-J 200V(C756) |
| C716 | 0262801F | PF 0.56UF-J 200V(C755/C750) |
| C716 | 0299933F | PF 0.39UF-K 200V(C053) |
| C718 | 0800064F | EL 330UF-M 6.3V(C756/C755/C750) |
| C719 | 0243504R | CD 180PF-K 500V TAPE |
| C720 | 0244501R | CD 1000PF-K 500V(C053) |
| C720 | 0244505R | CD 0.0022UF-K 500V(C756/C755/C750) |
| C721 | 0890067R | CD 33PF-J 50V(C756/C755/C750) |
| ⚠ C722 | 0800019R | EL 10UF-M 63V(C756/C755/C750) |
| C722 | 0800087F | EL 2200UF-M 16V(C053) |
| C723 | 0254823G | EL100UF-M 160V |
| C724 | 0253952R | EL 1.0UF-M 160V(C053) |
| C724 | 0880019R | PF 0.33UF-KB 50V(C756/C755/C750) |
| C725 | 0880057R | PF 0.1UF-KEB 50V |
| C726 | 0890087R | CD 1000PF-K 50V(C053) |
| C728 | 0800064R | EL 330UF-M 6.3V(C756/C755/C750) |
| C729 | 0800075F | EL 470UF-M 25V(C756/C755/C750) |
| ⚠ C730 | 0243508R | CD 390PF-K 500V |
| C731 | 0243508R | CD 390PF-K 500V |
| C732 | 0880031R | PF 1000PF-K 50V(C756/C755/C750) |
| C732 | 0890084R | CD 560PF-K 50V(C053) |
| C732A | 0890084R | CD 560PF-K 50V(C756/C755/C750) |
| C733 | 0253952R | EL 1.0UF-M 160V(C053) |
| C745 | 0880044R | PF 0.01UF-KEB 50V(C756/C755/C750) |
| C745 | 0890087R | CD 1000PF-K 50V(C053) |
| C748 | 0800082F | EL 1000UF-M 16V(C053) |
| C751 | 0880051R | PF 0.033UF-KEB 50V |
| C752 | 0800003R | EL 1.0UF-M 50V |
| ⚠ C753 | 0800015R | EL 10UF-M 16V |
| C754 | 0890074R | CD 100PF-J 50V(C756/C755/C750) |
| C756 | 0800049R | EL 100UF-M 16V(C053) |
| C756 | 0800066R | EL 330UF-M 16V(C756/C755/C750) |
| C757 | 0880044R | PF 0.01UF-KEB 50V |
| C760 | 0800009R | EL 4.7UF-M 25V |
| C771 | 0800049R | EL 100UF-M 16V(C756/C755/C750) |
| C772 | 0243508F | CD 390PF(B) 500WV(C756/C755/C750) |
| C781 | 0880044R | PF 0.01UF-KEB 50V(C756/C755/C750) |
| C801 | 0244723F | CD 680P-K 2KV(C756/C755/C750) |
| C801 | 0244729F | CD 2200PF 2KV(C053) |
| C804 | 0890083R | CD 470PF-K 50V |
| C806 | 0890084R | CD 560PF-K 50V(C053) |
| C806 | 0890085R | CD 680PF-K 50V(C756/C755/C750) |
| C807 | 0800066R | EL 330UF-M 16V(C756/C755/C750) |
| C809 | 0890084R | CD 560PF-K 50V |
| C8H1 | 0880048R | PF 0.022UF-KEB 50V(C756/C755/C750) |
| ⚠ C901 | AN00144S | PF (0.1UF250V ) |
| ⚠ C902 | AN00144S | PF (0.1UF250V )(C756/C755/C750) |
| C902 | 0249495F | CD 4700P-FZ 125V(C053) |
| ⚠ C903 | 0248593F | CD 4700PF-Z 250V(C756/C755/C750) |
| C903 | 0249495F | CD 4700P-FZ 125V(C053) |
| ⚠ C904 | 0248593F | CD 4700PF-Z 250V(C756/C755/C750) |
| C904 | 0249495F | CD 4700P-FZ 125V(C053) |
| C905 | AL00151 | EL 820UF 200V(USR)(C756/C755/C750) |
| C905 | 253891 | EL 470UF 200V HR(C053) |
| C907 | 0244541F | CD 0.01MF-K B 500V(C756/C755/C750) |
| C907 | 0253957F | EL 22UF-M 160V(C053) |
| ⚠ C908 | 0249392F | CD 2200PF 125V(C756/C755/C750) |
| C908 | 0800075F | EL 470UF-M 25V(C053) |
| ⚠ C909 | 0249392F | CD 2200PF 125V(C756/C755/C750) |
| C909 | 0800047R | EL 100UF-M 6.3V(C053) |
| C910 | 0800041R | EL 47UF-M 16V(C053) |
| C911 | 0880044R | PF 0.01UF-KEB 50V(C053) |
| C913 | 0244721F | CD 470PF 2KV(C756/C755/C750) |
| C913 | 0800003R | EL 1.0UF-M 50V(C053) |
| C914 | 0880062R | PF 0.22UF-KEB 50V(C756/C755/C750) |
| C915 | 253862 | EL 220UF-M 160V(C756/C755/C750) |
| C916 | 0880042R | PF 0.0068UF-KEB50V(C756/C755/C750) |
| C917 | 0244230R | CD. 220PF-B 50V(C756/C755/C750) |
| C918 | 0800047R | EL 100UF-M 6.3V(C756/C755/C750) |
| C919 | 0244721F | CD 470PF 2KV(C756/C755/C750) |
| C920 | 0800049R | EL 100UF-M 16V(C756/C755/C750) |
| C922 | 0244105R | CD 2200PF-K 50V TAPE(C756/C755/C750) |
| C922 | 0800082F | EL 1000UF-M 16V(C053) |
| C923 | 0800074N | EL 470UF-M 16V(C756/C755/C750) |
| C924 | 0880039R | PF 0.0047UF-KEB50V(C756/C755/C750) |
| C925 | 0253952R | EL 1.0UF-M 160V(C756/C755/C750) |
| C926 | 0880062R | PF 0.22UF-KEB 50V(C756/C755/C750) |
| C930 | 0800003R | EL 1.0UF-M 50V(C756/C755/C750) |
| C932 | 0254524F | EL 2200UF-M 25V(KME)(C756/C755/C750) |
| C934 | 0890081R | CD 330PF 50V(C756/C755/C750) |
| C936 | 0800059R | EL 220UF-M 25V(C756/C755/C750) |
| C937 | 0244141R | CD 0.01UF-KB B 50V(C756/C755/C750) |
| C938 | 0800015R | EL 10UF-M 16V |
| C939 | 0880057R | PF 0.1UF-KEB 50V(C756/C755/C750) |
| C940 | 0800015R | EL 10UF-M 16V(C756/C755/C750) |

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| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| C942 | 0800056R | EL 220UF-M 6.3V(C756/C755/C750) |
| C944 | 0800047R | EL 100UF-M 6.3V(C756/C755/C750) |
| C950 | 0249394F | CD 4700PF-F 125V(C053) |
| ⚠ C962 | AN00144S | PF (0.1UF250V )(C053) |
| CA01 | 0890086R | CD 820PF-K 50V(C756/C755) |
| CA02 | 0880057R | PF 0.1UF-KEB 50V(C756/C755) |
| CA03 | 0880057R | PF 0.1UF-KEB 50V(C756/C755) |
| CA04 | 0800049R | EL 100UF-M 16V(C756/C755) |
| CA05 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA07 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA08 | 0800049R | EL 100UF-M 16V(C756/C755) |
| CA09 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA10 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA11 | 0800041R | EL 47UF-M 16V(C756/C755) |
| CA12 | 0800049R | EL 100UF-M 16V(C756/C755) |
| CA13 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA14 | 0890078R | CD 220PF-K 50V(C756/C755) |
| CA15 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA16 | 0800003R | EL 1.0UF-M 50V(C756/C755) |
| CA17 | 0800001R | EL 0.47UF-M 50V (SME)(C756/C755) |
| CA18 | 0246445R | CD 16PF-J CH 50V(C756/C755) |
| CA19 | 0890085R | CD 680PF-K 50V(C756/C755) |
| CA20 | 0800001R | EL 0.47UF-M 50V (SME)(C756/C755) |
| CA21 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA22 | 0890078R | CD 220PF-K 50V(C756/C755) |
| CA25 | 0800003R | EL 1.0UF-M 50V(C756/C755) |
| CA26 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA27 | 0800005R | EL 2.2UF-M 50V(C756/C755) |
| CA28 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA29 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA30 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA31 | 0800041R | EL 47UF-M 16V(C756/C755) |
| CA32 | 0880057R | PF 0.1UF-KEB 50V(C756/C755) |
| CA35 | 0800058R | EL 220UF-M 16V(C756/C755) |
| CA37 | 0880057R | PF 0.1UF-KEB 50V(C756/C755) |
| CA38 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA40 | 0800049R | EL 100UF-M 16V(C756/C755) |
| CA41 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA42 | 0800049R | EL 100UF-M 16V(C756/C755) |
| CA43 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA44 | 0800041R | EL 47UF-M 16V(C756/C755) |
| CA48 | 0880057R | PF 0.1UF-KEB 50V(C756/C755) |
| CA49 | 0880057R | PF 0.1UF-KEB 50V(C756/C755) |
| CA52 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA53 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA54 | 0880044R | PF 0.01UF-KEB 50V(C756/C755) |
| CA55 | 0800049R | EL 100UF-M 16V(C756/C755) |
| CAZ1 | 0890084R | CD 560PF-K 50V(C756/C755) |
| CAZ2 | 0800015R | EL 10UF-M 16V(C756/C755) |
| CE25 | 0244105R | CD 2200PF-K 50V TAPE(C756/C755) |
| COM1 | 0248688R | CD 150PF-J SL 50V(C053) |
| COM1 | 0890076R | CD 150PF-K 50V(C756/C755/C750) |
| CT01 | 283127 | TRIMMER CAPACITOR (RED) |
|  |  | **DIODES** |
| D001 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D002 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D003 | 2339812M | ZD HZS3A2 TA (SI.200MA)(C756/C755/C750) |
| D004 | 2339812M | ZD HZS3A2 TA (SI.200MA)(C756/C755/C750) |
| D005 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D006 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D007 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D008 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D009 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D010 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D014 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| D015 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| D016 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| D018 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| D019 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D020 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D021 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D030 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D101 | 2339837M | ZD HZS-5C1 TAPE |
| D102 | 2339971M | ZD HZS33-1 TA |
| D301 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D302 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D401 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D404 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D405 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D406 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D407 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA) |
| D408 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D421 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D422 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D501 | 2339819M | ZD HZS3C3 TA |
| D502 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA) |
| D503 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA) |
| D504 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA) |
| D507 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D508 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D509 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D510 | 2339836M | ZD HZS-5 B3(C756/C755/C750)) |
| D511 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D512 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D513 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D515 | 2339851M | ZD HZS7A1 TAPE (SI.200MA)(C053) |
| D516 | 2339851M | ZD HZS7A1 TAPE (SI.200MA)(C053) |
| D604 | 2339491M | DI AM01Z (200 TAPE) 1A |
| D605 | 2339222M | ZD HZS27-2L |
| D606 | 2339222M | ZD HZS27-2L |
| D701 | 2339491M | DI AM01Z (200 TAPE)1A(C756/C755/C750) |
| D702 | 2398611M | DI 1SS254 TAPE (35V )SI 4NSEC(C756/C755/C750) |
| D703 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D704 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA) |
| D705 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| ⚠ D706 | 2339222M | ZD HZS27-2L |
| D707 | 2337341M | DI 1SS270A (TP)(C053) |
| D709 | 2339868M | ZD HZS9C2 TAPE |
| D710 | 2344071 | DI ERC20M-04(C756/C755/C750) |
| D711 | 2339842M | ZD HZS6A2 TA(C756/C755/C750) |
| ⚠ D712 | 2348511 | DI RS3FS(C756/C755/C750) |
| D713 | CH00031M | DI AU02V1(280V) |
| D714 | CH00031M | DI AU02V1(280V) |
| D715 | CH00031M | DI AU02V1(280V) |
| D716 | 2339491M | DI AM01Z (200 TAPE) 1A(C756/C755/C750) |
| D717 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D718 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D719 | 2339481M | DI AS01Z (200 TAPE) SI 0.6A(C053) |
| ⚠ D725 | 2339481M | DI AS01Z (200 TAPE) SI 0.6A |
| D726 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D730 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D731 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D732 | 2339481M | DI AS01Z (200 TAPE)SI 0.6A(C756/C755/C750) |
| D751 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| ⚠ D752 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D801 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D802 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D803 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D804 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D805 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D806 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| D807 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC |
| ⚠ D901 | 2332794 | DI RB-156 (LFB) SI 1.5A 4(C053) |
| ⚠ D901 | 2342062 | DI D3SBA60-4103(C756/C755/C750)) |
| D902 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D904 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D905 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D906 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D907 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D908 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D908 | 2349571M | DI SM-1XP2TP(C756/C755/C750)) |
| D909 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C053) |
| D909 | 2344071 | DI ERC20M-04(C756/C755/C750)) |
| D910 | 2339551M | DI ED14(V1) SI 5MA 45(C756/C755/C750) |

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| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| D910 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D911 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D913 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C053) |
| D915 | 2349571M | DI SM-1XP2TP(C756/C755/C750) |
| D916 | 2339837M | ZD HZS-5C1 TAPE(C756/C755/C750) |
| D918 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| D921 | 2339491M | DI AM01Z (200 TAPE) 1A(C053) |
| D931 | 2339865M | ZD DI HZS9 (B2)(C756/C755/C750) |
| D933 | 2398611M | DI 1SS254 TAPE (35V)SI 4NSEC(C756/C755/C750) |
| DA01 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C756/C755) |
| DA02 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| DA03 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| DA04 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| DA05 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C756/C755) |
| DA06 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
| DA07 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C756/C755) |
| DA08 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C756/C755) |
| DA09 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C756/C755) |
| DA10 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C756/C755) |
| DA11 | 2398611M | DI 1SS254 TAPE (35V) SI 4NSEC(C756/C755) |
| DA15 | 2339867M | ZD HZS-9-C1 TAPE (SI.200MA)(C756/C755) |
|  |  | **REMOTE CONTROLS** |
| E301 | HL00221 | R/C UNIT CLU-412UI(C755) |
| E301 | HL00223 | R/C UNIT CLU-414UI(C750) |
| E301 | HL00224 | R/C UNIT CLU-415UI(C756) |
| E301 | HL00223 | R/C UNIT CLU-414UI(C053) |
|  |  | **DEFLECTION YOKES** |
| ⚠ E601 | BY00461 | 27V PIN FREE DY(C756) |
| ⚠ E601 | 2445073 | DY-90ß 20V F/S COTY(C053) |
|  |  | **FUSES** |
| ⚠ F601 | 2722382 | FUSE-DC0.75A-J/UL(L) |
| ⚠ F901 | 2722212 | FUSE AC2.5A(C053) |
| ⚠ F901 | 2722358 | FUSE AC05A(C756/C755/C750) |
|  |  | **SURGE PROTECTOR** |
| ⚠ G901 | 2340741 | SURGE PROTECTOR DSP-301N-S00B |
|  |  | **FILTERS** |
| H001 | 2791754R | CONDENSER WITH 3 TERMINAL 100PF |
| H002 | 2791754R | CONDENSER WITH 3 TERMINAL 100PF |
| ⚠ H701 | 2793313 | CP-EXN-G131P365L(C756/C755/C750) |
| ⚠ H901 | 2793313 | CP-EXN-G131P365L |
| HA01 | 2151041 | DELAY LINE AND BAND PASS FILTER(C756/C755) |
| HA02 | 2791754 | FX-DSS306B101M(C756/C755) |
| HA03 | 2791754 | FX-DSS306B101M(C756/C755) |
| HA07 | 2791759 | FX-DSS306B102M(C756/C755) |
| HA08 | 2791759 | FX-DSS306B102M(C756/C755) |
| HA09 | 2791762 | FX-DSS306FZ103M(C756/C755) |
| HA10 | 2791762 | FX-DSS306FZ103M(C756/C755) |
|  |  | **INTEGRATED CIRCUITS** |
| I001 | CP01132 | DIGITAL MONOLITHIC IC LC864156A-5838 |
| I002 | CP00821 | DIGITAL MONOLITHIC IC M6M80022P |
| I003 | 2003522R | IC PST572D-2 (ANALOG IC) |
| ⚠ I201 | CP00961 | TA1201AN |
| I301 | 2020341 | IC MM1111XS(C756/C755/C750) |
| I401 | 2004022 | IC AN7147N |
| I402 | CP00811 | ANALOG MONOLITHIC IC UPC1852 |
| I404 | 2004362 | IC CXA1279AS |
| I501 | 2020341 | IC MM1111XS(C756/C755/C750) |
| I601 | 2020631 | IC AN5515(C053) |
| I601 | 2913981 | IC AN5521(C756/C755/C750) |
| ⚠ I901 | 2020392 | IC TDA4605-3(C756/C755/C750) |
| I901 | 2912175 | IC STR30135(C053) |
| ⚠ I902 | 2369711 | IC TLP541G |
| I903 | 2020461 | IC AN78L05(C053) |
| IA01 | 2020341 | IC MM1111XS(C756/C755) |
| IA02 | CP00841 | ANALOG MONOLITHIC IC M52694P(C756/C755) |
| IA03 | CP00831 | DIGITAL MONOLITHIC IC M65607SP(C756/C755) |
| IA04 | CP00851 | DIGITAL MONOLITHIC IC (HM53461-10)(C756/C755) |
| IA05 | 2366361 | IC.AN7805(C756/C755) |
|  |  | **INDUCTORS/COILS** |
| L001 | BH00101 | OSC COIL |
| L003 | 2123781 | FILTER COIL EL 100UH-K |
| L010 | 2123781R | FILTER COIL 101K(C756/C755/C750) |
| L101 | 2123781R | FILTER COIL 101K |
| L201 | BJ00131 | VCO TANK COIL 52.37MHZ |
| L240 | 2122948M | COIL-AXIAL 27UHKM BELTING(C053) |
| L240 | 2122949M | COIL-AXIAL 33UHKM BELTING(C756/C755/C750) |
| L242 | 2122944M | COIL-AXIAL 12UHKM BELTING |
| L243 | 2122948M | COIL-AXIAL 27UHKM BELTING |
| L301 | 2123781R | FILTER COIL 101K |
| L502 | 2122253M | COIL-AXIAL 100UH-K(C053) |
| L502 | 2123781R | FILTER COIL 101K(C756/C755/C750) |
| L503 | 2123781R | FILTER COIL 101K |
| L550 | 2123781R | FILTER COIL 101K |
| L601 | 2122653M | FERRITE CORE 1.65UH TAPE |
| L701 | 2125766R | HLL-470MRLT(LHLC06) |
| L702 | 2124513 | COIL-H.LINEARITY M1LXU1(C756/C755/C750) |
| L704 | 2122652M | FERRITE CORE |
| L705 | 2122652M | FERRITE CORE |
| L706 | 2122652M | FERRITE CORE |
| L751 | 2123747R | RADIAL COIL 4R7M EL0405(C756/C755/C750) |
| L804 | 2122094 | FIXED INDUCTOR 22UF-K(C053) |
| L804 | 2122801 | FIXED COIL FL-11Z 24UH-K(C756/C755/C750) |
| ⚠ L901 | 2169462 | LINE FILTER COIL FX--7355-60(C756/C755/C750) |
| ⚠ L901 | 2272391 | LINE FILTER(C053) |
| ⚠ L902 | 2169462 | LINE FILTER COIL FX--7355-60(C756/C755/C750) |
| L904 | 2123461M | FERRITE BEADS B 0.8 MH(C756/C755/C750) |
| L905 | 2123461M | FERRITE BEADS B 0.8 MH(C756/C755/C750) |
| L906 | 2123461M | FERRITE BEADS B 0.8 MH(C756/C755/C750) |
| L910 | 2125724 | COIL-CHOKE 47UH-K(C053) |
| L931 | 2220583 | COIL-CHOKE TSL0707 270K(C756/C755/C750) |
| L932 | 2123461M | FERRITE BEADS B 0.8 MH(C756/C755/C750) |
| L951 | 2275832 | COIL-DEGAUSSING (20V)(C053) |
| L955 | 2165747 | COIL-DEGAUSSING(C756/C755/C750) |
| LA01 | 2123781R | FILTER COIL 101K(C756/C755) |
| LA02 | 2123781R | FILTER COIL 101K(C756/C755) |
| LA03 | 2122253M | COIL-AXIAL 100UH-K(C756/C755) |
| LA04 | 2123781R | FILTER COIL 101K(C756/C755) |
| LA07 | 2122934M | COIL-AXIAL 2.2UH-M(C756/C755) |
| LA09 | 2122934M | COIL-AXIAL 2.2UH-M(C756/C755) |
| LAZ1 | 2122944M | COIL-AXIAL 12UHKM BELTING(C756/C755) |
|  |  | **INSTRUCTION MANUAL** |
| N201 | QR02351 | INSTRUCTION MANUAL M3LXU/M3XU |
|  |  | **TRANSISTORS** |
| Q001 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q002 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q003 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q004 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q005 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q006 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q240 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q241 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ |
| Q242 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q301 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q401 | 2320647M | TRS. 2SC1213 (C 21 TZ/D 21 TZ) SI 80MHZ4 |
| Q402 | 2320647M | TRS. 2SC1213 (C 21 TZ/D 21 TZ) SI 80MHZ4 |
| Q407 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755/C750) |
| Q408 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |

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| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| Q409 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755/C750) |
| Q410 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q591 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ |
| Q592 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755/C750) |
| Q593 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755/C750) |
| Q701 | 2323526M | TRS. 2SD789 D/E TAPE(C756/C755/C750) |
| Q701 | 2326216 | TRS. 2SC3116 (S/T)(C053) |
| ⚠ Q702 | 2315272 | TRS. 2SC4589-03(C756/C755) |
| ⚠ Q702 | 2327502 | TRS-2SD1877 SI 50W(C053) |
| Q704 | 2320647M | TRS. 2SC1213 (C21TZ/D21TZ) SI 80MHZ4(C756/C755/C750) |
| Q705 | 2320647M | TRS. 2SC1213 (C 21 TZ/D 21 TZ) SI 80MHZ4(C053) |
| Q705 | 2323434 | TRS. 2SC1983 (O/Y)(C756/C755/C750) |
| Q706 | 2326862R | TRS.DTA 114ES-TAPE |
| Q801 | 2315491 | TRS. 2SC4544(C756/C755/C750) |
| Q801 | 2322562 | TRS. 2SC2688 (K/L) SI 80MHZ(C053) |
| Q802 | 2315491 | TRS. 2SC4544(C756/C755/C750) |
| Q802 | 2322562 | TRS. 2SC2688 (K/L) SI 80MHZ(C053) |
| Q803 | 2315491 | TRS. 2SC4544(C756/C755/C750) |
| Q803 | 2322562 | TRS. 2SC2688 (K/L) SI 80MHZ(C053) |
| Q804 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755/C750) |
| Q901 | CF00151 | TRS. 2SK2255-01M (250V)(C756/C755/C750) |
| Q904 | 2323526M | TRS. 2SD789 D/E TAPE(C053) |
| Q906 | 2320647M | TRS. 2SC1213 (C 21 TZ/D 21 TZ) SI 80MHZ4(C053) |
| Q907 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C053) |
| Q908 | 2320647M | TRS. 2SC1213 (C 21 TZ/D 21 TZ) SI 80MHZ4(C053) |
| Q931 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755/C750) |
| Q933 | 2326872R | TRS.-DTC114ES TAPE(C756/C755/C750) |
| Q941 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755/C750) |
| Q945 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755/C750) |
| QA01 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA02 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA03 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755) |
| QA04 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA05 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA06 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA07 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755) |
| QA08 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA09 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA10 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA11 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA12 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA13 | 2320637M | TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ(C756/C755) |
| QA14 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA15 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA17 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA19 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QA20 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QAZ1 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| QC01 | 2320596M | TRS. 2SC458 (C TZ/D TZ) SI 230MHZ(C756/C755) |
| | | RESISTORS |
| R001 | 0700042M | CF 1/16W 1.2K-JB |
| R002 | 0700041M | CF 1/16W 1.0K-JB |
| R003 | 0700043M | CF 1/16W 1.5K-JB |
| R004 | 0700046M | CF 1/16W 2.7K-JB |
| R005 | 0700049M | CF 1/16W 4.7K-JB |
| R006 | 0700054M | CF 1/16W 10K-JB(C756/C755/C750) |
| R007 | 0700058M | CF 1/16W 22K-JB |
| R008 | 0700058M | CF 1/16W 22K-JB |
| R009 | 0700061M | CF 1/16W 33K-JB |
| R010 | 0700054M | CF 1/16W 10K-JB |
| R011 | 0700064M | CF 1/16W 56K-JB |
| R012 | 0700049M | CF 1/16W 4.7K-JB |
| R013 | 0700027M | CF 1/16W 100-JB |
| R014 | 0700027M | CF 1/16W 100-JB |
| R015 | 0700051M | CF 1/16W 5.6K-JB |
| R016 | 0700051M | CF 1/16W 5.6K-JB |
| R017 | 0700041M | CF 1/16W 1.0K-JB |
| R018 | 0700041M | CF 1/16W 1.0K-JB |
| R019 | 0700041M | CF 1/16W 1.0K-JB |
| R020 | 0700041M | CF 1/16W 1.0K-JB |
| R021 | 0700041M | CF 1/16W 1.0K-JB |
| R022 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R023 | 0700041M | CF 1/16W 1.0K-JB |
| R024 | 0700041M | CF 1/16W 1.0K-JB |
| R025 | 0700041M | CF 1/16W 1.0K-JB |
| R026 | 0700054M | CF 1/16W 10K-JB |
| R027 | 0700041M | CF 1/16W 1.0K-JB |
| R028 | 0700041M | CF 1/16W 1.0K-JB |
| R029 | 0700053M | CF 1/16W 8.2K-JB(C756/C755/C750) |
| R030 | 0700041M | CF 1/16W 1.0K-JB |
| R031 | 0700054M | CF 1/16W 10K-JB |
| R032 | 0700056M | CF 1/16W 15K-JB(C756/C755/C750) |
| R033 | 0700058M | CF 1/16W 22K-JB(C756/C755/C750) |
| R034 | 0700045M | CF 1/16W 2.2K-JB(C756/C755/C750) |
| R035 | 0700045M | CF 1/16W 2.2K-JB(C756/C755/C750) |
| R036 | 0700056M | CF 1/16W 15K-JB(C756/C755/C750) |
| R037 | 0700059M | CF 1/16W 27K-JB(C756/C755/C750) |
| R038 | 0700056M | CF 1/16W 15K-JB(C756/C755/C750) |
| R039 | 0700059M | CF 1/16W 27K-JB(C756/C755/C750) |
| R040 | 0700055M | CF 1/16W 12K-JB |
| R041 | 0700058M | CF 1/16W 22K-JB |
| R042 | 0700042M | CF 1/16W 1.2K-JB(C053) |
| R042 | 0700044M | CF 1/16W 1.8K-JB(C756/C755/C750) |
| R043 | 0700042M | CF 1/16W 1.2K-JB(C053) |
| R043 | 0700044M | CF 1/16W 1.8K-JB(C756/C755/C750) |
| R044 | 0700042M | CF 1/16W 1.2K-JB(C053) |
| R044 | 0700044M | CF 1/16W 1.8K-JB(C756/C755/C750) |
| R045 | 0700041M | CF 1/16W 1.0K-JB |
| R050 | 0700048M | CF 1/16W 3.9K-JB(C756/C755/C750) |
| R051 | 0700048M | CF 1/16W 3.9K-JB(C756/C755/C750) |
| R052 | 0700041M | CF 1/16W 1.0K-JB |
| R053 | 0700041M | CF 1/16W 1.0K-JB |
| R054 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R055 | 0700045M | CF 1/16W 2.2K-JB(C756/C755/C750) |
| R056 | 0700049M | CF 1/16W 4.7K-JB(C756/C755/C750) |
| R057 | 0700049M | CF 1/16W 4.7K-JB(C756/C755/C750) |
| R060 | 0700041M | CF 1/16W 1.0K-JB |
| R062 | 0700041M | CF 1/16W 1.0K-JB |
| R063 | 0700041M | CF 1/16W 1.0K-JB |
| R064 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R065 | 0700041M | CF 1/16W 1.0K-JB |
| R066 | 0700041M | CF 1/16W 1.0K-JB |
| R067 | 0700041M | CF 1/16W 1.0K-JB |
| R068 | 0700036M | CF 1/16W 470-JB |
| R069 | 0700027M | CF 1/16W 100-JB |
| R070 | 0700041M | CF 1/16W 1.0K-JB |
| R071 | 0700041M | CF 1/16W 1.0K-JB |
| R072 | 0700041M | CF 1/16W 1.0K-JB |
| R073 | 0700041M | CF 1/16W 1.0K-JB |
| R074 | 0100065M | CF 1/8W 1K-JB(C756/C755) |
| R075 | 0100065M | CF 1/8W 1K-JB(C756/C755) |
| R076 | 0100065M | CF 1/8W 1K-JB(C756/C755) |
| R077 | 0100065M | CF 1/8W 1K-JB(C756/C755) |
| R080 | 0100065M | CF 1/8W 1K-JB(C756/C755) |
| R081 | 0700041M | CF 1/16W 1.0K-JB |
| R082 | 0700054M | CF 1/16W 10K-JB |
| R083 | 0700041M | CF 1/16W 1.0K-JB |
| R084 | 0700042M | CF 1/16W 1.2K-JB |
| R085 | 0700063M | CF 1/16W 47K-JB |
| R086 | 0700054M | CF 1/16W 10K-JB |
| R087 | 0700054M | CF 1/16W 10K-JB |
| R089 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R090 | 0700054M | CF 1/16W 10K-JB |

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| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| R091 | 0700042M | CF 1/16W 1.2K-JB(C756/C755/C750) |
| R092 | 0700054M | CF 1/16W 10K-JB |
| R093 | 0700041M | CF 1/16W 1.0K-JB |
| R094 | 0700041M | CF 1/16W 1.0K-JB |
| R095 | 0700045M | CF 1/16W 2.2K-JB |
| R096 | 0700049M | CF 1/16W 4.7K-JB |
| R097 | 0700041M | CF 1/16W 1.0K-JB |
| R098 | 0100065M | CF 1/8W 1K-JB(C756/C755/C750) |
| R100 | 0700058M | CF 1/16W 22K-JB |
| R101 | 0100065M | CF 1/8W 1K-JB |
| R103 | 0114131M | CF 1/4W 100-JB |
| R206 | 0700036M | CF 1/16W 470-JB |
| R207 | 0700036M | CF 1/16W 470-JB |
| R208 | 0700027M | CF 1/16W 100-JB |
| R209 | 0700045M | CF 1/16W 2.2K-JB |
| R210 | 0100121M | CF 1/8W 220K-JB |
| R212 | 0100131M | CF 1/8W 560K-JB |
| R213 | 0700051M | CF 1/16W 5.6K-JB |
| R216 | 0700043M | CF 1/16W 1.5K-JB |
| R240 | 0700036M | CF 1/16W 470-JB |
| R241 | 0700027M | CF 1/16W 100-JB |
| R242 | 0700037M | CF 1/16W 560-JB |
| R242A | 0700033M | CF 1/16W 270-JB |
| R243 | 0700043M | CF 1/16W 1.5K-JB |
| R246 | 0100057M | CF 1/8W 470-JB(C053) |
| R246 | 0700034M | CF 1/16W 330-JB(C756/C755/C750) |
| R247 | 0100057M | CF 1/8W 470-JB(C756/C755/C750) |
| R247 | 0700037M | CF 1/16W 560-JB(C053) |
| R248 | 0700041M | CF 1/16W 1.0K-JB |
| R251 | 0700027M | CF 1/16W 100-JB(C053) |
| R252 | 0700037M | CF 1/16W 560-JB(C053) |
| R253 | 0700031M | CF 1/16W 180-JB(C053) |
| R301 | 0700054M | CF 1/16W 10K-JB(C756/C755/C750) |
| R302 | 0700058M | CF 1/16W 22K-JB(C053) |
| R302 | 0700061M | CF 1/16W 33K-JB(C756/C755/C750) |
| R303 | 0700031M | CF 1/16W 180-JB |
| R304 | 0700041M | CF 1/16W 1.0K-JB(C053) |
| R305 | 0700041M | CF 1/16W 1.0K-JB |
| R306 | 0700051M | CF 1/16W 5.6K-JB |
| R307 | 0700038M | CF 1/16W 680-JB(C053) |
| R307 | 0700048M | CF 1/16W 3.9K-JB(C756/C755/C750) |
| R308 | 0700047M | CF 1/16W 3.3K-JB(C053) |
| R330 | 0100041M | CF 1/8W 100-JB(C756/C755/C750) |
| R332 | 0100041M | CF 1/8W 100-JB |
| R333 | 0100038M | CF 1/8W 75-JB |
| R401 | 0700051M | CF 1/16W 5.6K-JB(C756/C755/C750) |
| R402 | 0700067M | CF 1/16W 100K-JB |
| R403 | 0700045M | CF 1/16W 2.2K-JB |
| R404 | 0700045M | CF 1/16W 2.2K-JB |
| R405 | 0700038M | CF 1/16W 680-JB(C053) |
| R405 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R406 | 0700038M | CF 1/16W 680-JB(C053) |
| R406 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R407 | 0700048M | CF 1/16W 3.9K-JB |
| R408 | 0700048M | CF 1/16W 3.9K-JB |
| R409 | 0700034M | CF 1/16W 330-JB |
| R410 | 0100065M | CF 1/8W 1K-JB(C053) |
| R410 | 0100077M | CF 1/8W 3.3K-JB(C756/C755/C750) |
| R411 | 0100065M | CF 1/8W 1K-JB(C053) |
| R411 | 0100077M | CF 1/8W 3.3K-JB(C756/C755/C750) |
| R412 | 0700034M | CF 1/16W 330-JB |
| R413 | 0100113M | CF 1/8W 100K-JB |
| R414 | 0700063M | CF 1/16W 47K-JB |
| R415 | 0700054M | CF 1/16W 10K-JB |
| R416 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R417 | 0700054M | CF 1/16W 10K-JB |
| R418 | 0700054M | CF 1/16W 10K-JB |
| R419 | 0100051M | CF 1/8W 270-JB |
| R420 | 0700055M | CF 1/16W 12K-JB(C053) |
| R421 | 0700049M | CF 1/16W 4.7K-JB(C053) |
| R422 | 0700055M | CF 1/16W 12K-JB(C053) |
| R423 | 0700049M | CF 1/16W 4.7K-JB(C053) |
| R424 | 0700049M | CF 1/16W 4.7K-JB(C053) |

| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| R440 | 0700049M | CF 1/16W 4.7K-JB |
| R441 | 0700049M | CF 1/16W 4.7K-JB |
| R447 | 0700065M | CF 1/16W 68K-JB |
| R448 | 0700041M | CF 1/16W 1.0K-JB |
| R449 | 0187076M | CF 1/16W 3.0K-JB |
| R450 | 0187082M | CF 1/16W 5.1K-JB |
| R451 | 0119636M | MF 1/8W 16K-FB |
| R451A | 0119601M | MF 1/8W 560-FB |
| R452 | 0700036M | CF 1/16W 470-JB |
| R453 | 0700036M | CF 1/16W 470-JB |
| R454 | 0700058M | CF 1/16W 22K-JB |
| R455 | 0700041M | CF 1/16W 1.0K-JB |
| R456 | 0700041M | CF 1/16W 1.0K-JB |
| R457 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R458 | 0700035M | CF 1/16W 390-JB(C053) |
| R458 | 0700039M | CF 1/16W 820-JB(C756/C755/C750) |
| R459 | 0700054M | CF 1/16W 10K-JB |
| R460 | 0700058M | CF 1/16W 22K-JB |
| R461 | 0700054M | CF 1/16W 10K-JB |
| R462 | 0700041M | CF 1/16W 1.0K-JB |
| R463 | 0700041M | CF 1/16W 1.0K-JB |
| R464 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R465 | 0700035M | CF 1/16W 390-JB(C053) |
| R465 | 0700039M | CF 1/16W 820-JB(C756/C755/C750) |
| ⚠ R466 | 0119505G | MF 2.2-J |
| ⚠ R467 | 0119505G | MF 2.2-J |
| ⚠ R468 | 0119505G | MF 2.2-J |
| R469 | 0700041M | CF 1/16W 1.0K-JB |
| R472 | 0100113M | CF 1/8W 100K-JB |
| R473 | 0100065M | CF 1/8W 1K-JB |
| R474 | 0100113M | CF 1/8W 100K-JB |
| R475 | 0100065M | CF 1/8W 1K-JB |
| R476 | 0100065M | CF 1/8W 1K-JB |
| R477 | 0100113M | CF 1/8W 100K-JB |
| R478 | 0100065M | CF 1/8W 1K-JB |
| R479 | 0100113M | CF 1/8W 100K-JB |
| R489 | 0100121M | CF 1/8W 220K-JB |
| R490 | 0100133M | CF 1/8W 680K-JB |
| R491 | 0700027M | CF 1/16W 100-JB |
| R492 | 0700027M | CF 1/16W 100-JB |
| R501 | 0100121M | CF 1/8W 220K-JB(C053) |
| R501 | 0100133M | CF 1/8W 680K-JB(C756/C755/C750) |
| R502 | 0700035M | CF 1/16W 390-JB(C756/C755/C750) |
| R502 | 0700037M | CF 1/16W 560-JB(C053) |
| R503 | 0700038M | CF 1/16W 680-JB |
| R504 | 0700027M | CF 1/16W 100-JB |
| R505 | 0700047M | CF 1/16W 3.3K-JB |
| R506 | 0114141M | CF 1/4W 270-JB |
| R507 | 0100069M | CF 1/8W 1.5K-JB(C053) |
| R507 | 0100073M | CF 1/8W 2.2K-JB(C756/C755/C750) |
| R508 | 0100069M | CF 1/8W 1.5K-JB(C053) |
| R508 | 0100073M | CF 1/8W 2.2K-JB(C756/C755/C750) |
| R509 | 0100069M | CF 1/8W 1.5K-JB(C053) |
| R509 | 0100073M | CF 1/8W 2.2K-JB(C756/C755/C750) |
| R515 | 0700053M | CF 1/16W 8.2K-JB(C053) |
| R515 | 0700066M | CF 1/16W 82K-JB(C756/C755/C750) |
| R516 | 0700066M | CF 1/16W 82K-JB |
| R550 | 0100038M | CF 1/8W 75-JB(C756/C755/C750) |
| R551 | 0100038M | CF 1/8W 75-JB(C756/C755/C750) |
| R552 | 0100041M | CF 1/8W 100-JB(C756/C755/C750) |
| R553 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R554 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R555 | 0700041M | CF 1/16W 1.0K-JB |
| R556 | 0700036M | CF 1/16W 470-JB |
| R557 | 0700034M | CF 1/16W 330-JB(C756/C755/C750) |
| R558 | 0700034M | CF 1/16W 330-JB(C756/C755/C750) |
| R559 | 0700044M | CF 1/16W 1.8K-JB |
| R560 | 0700044M | CF 1/16W 1.8K-JB |
| R561 | 0700044M | CF 1/16W 1.8K-JB |
| R562 | 0700027M | CF 1/16W 100-JB(C756/C755/C750) |
| R563 | 0700034M | CF 1/16W 330-JB(C756/C755/C750) |
| R591 | 0700032M | CF 1/16W 220-JB |
| R592 | 0700032M | CF 1/16W 220-JB |

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| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| R593 | 0700032M | CF 1/16W 220-JB |
| R595 | 0700041M | CF 1/16W 1.0K-JB(C053) |
| R601 | 0187094M | CF 1/16W 16K-JB(C756/C755/C750) |
| R601 | 0700058M | CF 1/16W 22K-JB(C053) |
| R602 | 0700027M | CF 1/16W 100-JB |
| R603 | 0700027M | CF 1/16W 100-JB |
| R605 | 0700067M | CF 1/16W 100K-JB(C756/C755/C750) |
| R608 | 0113748M | CF 1/2 P-B 820-JB(C756/C755/C750) |
| R608 | 0113756M | CF SRD1/2P-B 1.8K-J(C053) |
| R609 | 119732 | MF 1.2-K 1W(C756/C755/C750) |
| R609 | 119733 | MF 1W 1.5-K(C053) |
| R611 | 0700056M | CF 1/16W 15K-JB(C756/C755/C750) |
| R611 | 0700057M | CF 1/16W 18K-JB(C053) |
| R612 | 0700041M | CF 1/16W 1.0K-JB |
| R614 | 0700061M | CF 1/16W 33K-JB |
| R615 | 0700051M | CF 1/16W 5.6K-JB |
| R616 | 0700054M | CF 1/16W 10K-JB |
| R617 | 0113735M | CF 1/2W 270-JB |
| R618 | 0700059M | CF 1/16W 27K-JB |
| R701 | 0114212M | CF SRD 1/4 P 30K-JB(C756/C755/C750) |
| R701 | 0114281M | CF SRD 1/4P 100K-J(C053) |
| R701A | 0114223M | CF SRD 1/4 PB 82K-J(C053) |
| ⚠ R703 | 0119645M | MF 1/8W 39K-FB(C053) |
| ⚠ R703 | 0119651M | MF 1/8W 68K-FB(C756/C755/C750) |
| ⚠ R704 | 0118970M | MF 240K-G 1/16W(C053) |
| ⚠ R704 | 0119648M | MF 1/8W 51K-FB(C756/C755/C750) |
| R705 | 0100049M | CF 1/8W 220-JB(C756/C755/C750) |
| R705 | 0100051M | CF 1/8W 270-JB(C053) |
| R706 | 0700042M | CF 1/16W 1.2K-JB(C756/C755/C750) |
| R706 | 0700055M | CF 1/16W 12K-JB(C053) |
| R707 | 0100089M | CF 1/8W 10K-JB |
| R708 | 0100049M | CF 1/8W 220-JB |
| R719 | 0113750M | CF 1/2W 1K-JB(C756/C755/C750) |
| R719 | 0113758M | CF 1/2W 2.2K-JB(C053) |
| R720 | 0113709M | CF SRD1/2P-B 22-J(C756/C755/C750) |
| R721 | 0110215S | MF 56-JS(C756/C755/C750) |
| R721 | 0110219S | MF 82-JS(C756/C755/C750) |
| R721 | 0140325S | WW 4.7K-J 5W(C053) |
| R722 | 147532 | WW 4.7J 5W(C053) |
| R722 | 147821 | WW 15W 3.9-JF(C756/C755/C750) |
| R723 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R724 | 0113748M | CF 1/2 P-B 820-JB(C756/C755/C750) |
| R725 | 0700032M | CF 1/16W 220-JB(C053) |
| R726 | 0100077M | CF 1/8W 3.3K-JB |
| R727 | 0110271S | MF 2W 12K-JS(C053) |
| R728 | 0110271S | MF 2W 12K-JS(C053) |
| R728 | 0113758M | CF 1/2W 2.2K-JB(C756/C755/C750) |
| ⚠ R730 | 0119505G | MF 2.2-J |
| R732 | 0700043M | CF 1/16W 1.5K-JB(C053) |
| R734 | 0100089M | CF 1/8W 10K-JB |
| R735 | 0700047M | CF 1/16W 3.3K-JB |
| R736 | 0700041M | CF 1/16W 1.0K-JB |
| R741 | 0113793M | CF SRD1/2P-B 56K-J(C053) |
| R745 | 0100037M | CF 1/8W 68-JB |
| R746 | 0113729M | CF 1/2W 150-JB(C756/C755/C750) |
| R746 | 0114177M | CF SRD 1/4 P 4.7K-J(C053) |
| R747 | 0110101S | MF 1W 15-JS(C053) |
| R749 | 0700045M | CF 1/16W 2.2K-JB(C756/C755/C750) |
| R750 | 0114057M | CF SRD 1/4 PF 47-J(C053) |
| R751 | 0700034M | CF 1/16W 330-JB |
| R752 | 0700045M | CF 1/16W 2.2K-JB |
| R753 | 0700034M | CF 1/16W 330-JB |
| ⚠ R754 | 0700063M | CF 1/16W 47K-JB |
| R756 | 0700034M | CF 1/16W 330-JB(C756/C755/C750) |
| R756 | 0700046M | CF 1/16W 2.7K-JB(C053) |
| R757 | 0100029M | CF 1/8W 33-JB |
| R759A | 0110199S | MF 2W 12-JS(C053) |
| R759B | 0110199S | MF 2W 12-JS(C053) |
| R760 | 0700058M | CF 1/16W 22K-JB(C756/C755/C750) |
| R761 | 0700058M | CF 1/16W 22K-JB(C756/C755/C750) |
| R762 | 0100051M | CF 1/8W 270-JB(C756/C755/C750) |
| R764 | 0700053M | CF 1/16W 8.2K-JB |
| R765 | 0100047M | CF 1/8W 180-JB |
| R766 | 0100105M | CF 1/8W 47K-JB(C053) |
| R771 | 0110197S | MF 2W 10-JS(C756/C755/C750) |
| R801 | AT00387S | MF 3W 12K OHM(C756/C755/C750) |
| R801 | 0110271S | MF 2W 12K-JS(C053) |
| R802 | 0113750M | CF 1/2W 1K-JB |
| R803 | AT00387S | MF 3W 12K OHM(C756/C755/C750) |
| R803 | 0110271S | MF 2W 12K-JS(C053) |
| R804 | 0700043M | CF 1/16W 1.5K-JB(C756/C755/C750) |
| R804 | 0700044M | CF 1/16W 1.8K-JB(C053) |
| R805 | 0187046M | CF 1/16W 160-JB(C756/C755/C750) |
| R805 | 0700034M | CF 1/16W 330-JB(C053) |
| R806 | 0700027M | CF 1/16W 100-JB |
| R809 | 0113750M | CF 1/2W 1K-JB |
| R810 | 0700054M | CF 1/16W 10K-JB |
| R811 | 0100049M | CF 1/8W 220-JB |
| R812 | 0100049M | CF 1/8W 220-JB |
| R813 | 0700054M | CF 1/16W 10K-JB |
| R814 | 0700043M | CF 1/16W 1.5K-JB(C756/C755/C750) |
| R814 | 0700044M | CF 1/16W 1.8K-JB(C053) |
| R815 | 0187046M | CF 1/16W 160-JB(C756/C755/C750) |
| R815 | 0700034M | CF 1/16W 330-JB(C053) |
| R816 | 0700027M | CF 1/16W 100-JB |
| R819 | AT00387S | MF 3W 12K OHM(C756/C755/C750) |
| R819 | 0110271S | MF 2W 12K-JS(C053) |
| R820 | 0113750M | CF 1/2W 1K-JB |
| R823 | 0100073M | CF 1/8W 2.2K-JB(C756/C755/C750) |
| R825 | 0700043M | CF 1/16W 1.5K-JB(C756/C755/C750) |
| R825 | 0700044M | CF 1/16W 1.8K-JB(C053) |
| R827 | 0700027M | CF 1/16W 100-JB |
| R828 | 0187046M | CF 1/16W 160-JB(C756/C755/C750) |
| R828 | 0700034M | CF 1/16W 330-JB(C053) |
| R829 | 0700054M | CF 1/16W 10K-JB |
| R830 | 0100049M | CF 1/8W 220-JB |
| R831 | 0100043M | CF 1/8W 120-JB(C756/C755/C750) |
| R841 | 0113733M | CF SRD1/2P-B 220-J(C053) |
| ⚠ R900 | 139026 | CC RC1/2W 8.2M-KF HIGH VOL(C756/C755/C750) |
| ⚠ R901 | 2341261 | THERMISTOR |
| ⚠ R902 | 144151 | WW 33-J(C756/C755/C750) |
| R903 | 141133 | WW 7W 2.7-K CEMENTED(C053) |
| R903 | 147811 | WW 15W 1.5-KM(C756/C755/C750) |
| R904 | 0113778M | CF 1/2W 15K-JB(C053) |
| R905 | 0100125M | CF 1/8W 330K-JB(C053) |
| R905 | 0110253S | MF 2.2K-JS(C756/C755/C750) |
| R906 | 0110253S | MF 2.2K-JS(C756/C755/C750) |
| R906 | 141157 | WW 15W 150-JF(C053) |
| R907 | 0110211S | MF 39-JS(C053) |
| R907 | 0110253S | MF 2.2K-JS(C756/C755/C750) |
| R908 | 0110211S | MF 39-JS(C053) |
| R908 | 0110281S | MF 33K-JS(C756/C755/C750) |
| R908A | 0110211S | MF 39-JS(C053) |
| R909 | 0119508S | MF 1/4W 56-JF(C053) |
| R909 | 0140931S | WW 7W 3.3K(BSR-Z)(C756/C755/C750) |
| R910 | 0119733M | MF 1W 1R5 -K TAPE(C053) |
| ⚠ R910 | 0139015G | CC RC1/2W1M-KFHIGHVOLT(C756/C755/C750) |
| R911 | 0100041M | CF 1/8W 100-JB(C756/C755/C750) |
| R911 | 0110117S | MF 68-JS(C053) |
| R912 | 0700043M | CF 1/16W 1.5K-JB(C053) |
| R912 | 0700044M | CF 1/16W 1.8K-JB(C756/C755/C750) |
| R913 | 0700061M | CF 1/16W 33K-JB(C053) |
| R914 | 0100009M | CF 1/8W 4.7-JB(C756/C755/C750) |
| R914 | 0700064M | CF 1/16W 56K-JB(C053) |
| R915 | 0179554M | MG 1/4P330K-J(C756/C755/C750) |
| R915 | 0700027M | CF 1/16W 100-JB(C053) |
| R916 | 0100067M | CF 1/8W 1.2K-JB(C053) |
| R916 | 0179554M | MG 1/4P330K-J(C756/C755/C750) |
| R917 | 0113798M | CF SRD1/2P-B 91K-J(C756/C755/C750) |
| R918 | 0700067M | CF 1/16W 100K-JB(C756/C755/C750) |
| R920 | 0179552M | MG 220K-JTAPE(C756/C755/C750) |
| R921 | 0700054M | CF 1/16W 10K-JB(C756/C755/C750) |
| R922 | 0110129S | MF 220-JS(C756/C755/C750) |
| R923 | 0119591M | MF 1/8W 220-FB(C756/C755/C750) |
| R924 | 0119619M | MF 1/8W 3.3K-FB(C756/C755/C750) |
| R924 | 0700059M | CF 1/16W 27K-JB(C053) |

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| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| R925 | 0100133M | CF 1/8W 680K-JB(C053) |
| R925 | 119640 | MF 1/8W 24K-F(C756/C755/C750) |
| R926 | 119640 | MF 1/8W 24K-F(C756/C755/C750) |
| R927 | 0119619M | MF 1/8W 3.3K-FB(C756/C755/C750) |
| R927 | 0700041M | CF 1/16W 1.0K-JB(C053) |
| R928 | 150213 | VR R-0814 2K-B(C756/C755/C750) |
| R928 | 0700047M | CF 1/16W 3.3K-JB(C053) |
| R929 | 0700049M | CF 1/16W 4.7K-JB(C053) |
| R932 | 0700053M | CF 1/16W 8.2K-JB(C756/C755/C750) |
| R933 | 0700053M | CF 1/16W 8.2K-JB(C756/C755/C750) |
| R935 | 0110225S | MF 150-JS 2W(C756/C755/C750) |
| R940 | 0700059M | CF 1/16W 27K-JB(C756/C755/C750) |
| R942 | 0700056M | CF 1/16W 15K-JB(C756/C755/C750) |
| R943 | 0700045M | CF 1/16W 2.2K-JB(C756/C755/C750) |
| R944 | 0114151M | CF SRD 1/4 P 680-J(C756/C755/C750) |
| R944 | 0700037M | CF 1/16W 560-JB(C053) |
| R945 | 0114059M | CF SRD 1/4 PF 56-J(C053) |
| R946 | 0700049M | CF 1/16W 4.7K-JB(C756/C755/C750) |
| R947 | 0700041M | CF 1/16W 1.0K-JB(C756/C755/C750) |
| R948 | 119695 | MF 1W 0.47-F(C756/C755/C750) |
| R949 | 0110133S | MF 330-JS(C756/C755/C750) |
| R950 | 0139015G | CC RC1/2W 1M-KF HIGH VOLT(C053) |
| RA02 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RA03 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RA06 | 0700037M | CF 1/16W 560-JB(C756/C755) |
| RA07 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA08 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA09 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA10 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RA11 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RA12 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA13 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA14 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA15 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA16 | 0700062M | CF 1/16W 39K-JB(C756/C755) |
| RA17 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA18 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RA19 | 0700036M | CF 1/16W 470-JB(C756/C755) |
| RA20 | 0700034M | CF 1/16W 330-JB(C756/C755) |
| RA21 | 0700036M | CF 1/16W 470-JB(C756/C755) |
| RA22 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA23 | 0700034M | CF 1/16W 330-JB(C756/C755) |
| RA24 | 0700033M | CF 1/16W 270-JB(C756/C755) |
| RA25 | 0700063M | CF 1/16W 47K-JB(C756/C755) |
| RA26 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA27 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA28 | 0700038M | CF 1/16W 680-JB(C756/C755) |
| RA29 | 0700035M | CF 1/16W 390-JB(C756/C755) |
| RA30 | 0700042M | CF 1/16W 1.2K-JB(C756/C755) |
| RA31 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA34 | 0700063M | CF 1/16W 47K-JB(C756/C755) |
| RA35 | 0700058M | CF 1/16W 22K-JB(C756/C755) |
| RA36 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA37 | 0700058M | CF 1/16W 22K-JB(C756/C755) |
| RA38 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA39 | 0700035M | CF 1/16W 390-JB(C756/C755) |
| RA40 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA41 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA43 | 0700067M | CF 1/16W 100K-JB(C756/C755) |
| RA44 | 0700063M | CF 1/16W 47K-JB(C756/C755) |
| RA45 | 0700039M | CF 1/16W 820-JB(C756/C755) |
| RA46 | 0110209S | MF 33-JS(C756/C755) |
| RA47 | 0110209S | MF 33-JS(C756/C755) |
| RA48 | 0187038M | CF 1/16W 75-J(C756/C755) |
| RA49 | 0187038M | CF 1/16W 75-J(C756/C755) |
| RA50 | 0700028M | CF 1/16W 120-JB(C756/C755) |
| RA51 | 0700032M | CF 1/16W 220-JB(C756/C755) |
| RA53 | 0100041M | CF 1/8W 100-JB(C756/C755) |
| RA55 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RA56 | 0100041M | CF 1/8W 100-JB(C756/C755) |
| RA58 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RA59 | 0700037M | CF 1/16W 560-JB(C756/C755) |
| RA60 | 0700066M | CF 1/16W 82K-JB(C756/C755) |
| RA61 | 0700036M | CF 1/16W 470-JB(C756/C755) |
| RA62 | 0700028M | CF 1/16W 120-JB(C756/C755) |
| RA63 | 0179536M | MG 1M J TAPE(C756/C755) |
| RA64 | 0700043M | CF 1/16W 1.5K-JB(C756/C755) |
| RA65 | 0187034M | CF 1/16W 51-J(C756/C755) |
| RA66 | 0700034M | CF 1/16W 330-JB(C756/C755) |
| RA67 | 0100059M | CF 1/8W 560-JB(C756/C755) |
| RA68 | 0700062M | CF 1/16W 39K-JB(C756/C755) |
| RA70 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA71 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA72 | 0700032M | CF 1/16W 220-JB(C756/C755) |
| RA73 | 0700032M | CF 1/16W 220-JB(C756/C755) |
| RA74 | 0700032M | CF 1/16W 220-JB(C756/C755) |
| RA75 | 0100059M | CF 1/8W 560-JB(C756/C755) |
| RA76 | 0700032M | CF 1/16W 220-JB(C756/C755) |
| RA77 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA78 | 0100059M | CF 1/8W 560-JB(C756/C755) |
| RA80 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA81 | 0700052M | CF 1/16W 6.8K-JB(C756/C755) |
| RA82 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA83 | 0100059M | CF 1/8W 560-JB(C756/C755) |
| RA84 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA85 | 0700063M | CF 1/16W 47K-JB(C756/C755) |
| RA86 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA87 | 0100065M | CF 1/8W 1K-JB(C756/C755) |
| RA89 | 0700058M | CF 1/16W 22K-JB(C756/C755) |
| RA90 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA91 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA92 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA93 | 0700054M | CF 1/16W 10K-JB(C756/C755) |
| RA94 | 0700041M | CF 1/16W 1.0K-JB(C756/C755) |
| RA95 | 0700053M | CF 1/16W 8.2K-JB(C756/C755) |
| RA96 | 0700056M | CF 1/16W 15K-JB(C756/C755) |
| RAZ1 | 0700036M | CF 1/16W 470-JB(C756/C755) |
| RAZ2 | 0700036M | CF 1/16W 470-JB(C756/C755) |
| RAZ3 | 0700033M | CF 1/16W 270-JB(C756/C755) |
| RAZ4 | 0700027M | CF 1/16W 100-JB(C756/C755) |
| RC01 | 0700039M | CF 1/16W 820-JB(C756/C755) |
| RC02 | 0700033M | CF 1/16W 270-JB(C756/C755) |
| RC03 | 0700032M | CF 1/16W 220-JB(C756/C755) |
| RE04 | 0100041M | CF 1/8W 100-JB(C756/C755) |
| RE05 | 0100041M | CF 1/8W 100-JB(C756/C755) |
| RE06 | 0100041M | CF 1/8W 100-JB(C756/C755) |
| RE20 | 0700059M | CF 1/16W 27K-JB(C756/C755) |
| RE21 | 0700059M | CF 1/16W 27K-JB(C756/C755) |
| RE22 | 0700063M | CF 1/16W 47K-JB(C756/C755) |
| RE23 | 0700059M | CF 1/16W 27K-JB(C756/C755) |
| RE24 | 0700059M | CF 1/16W 27K-JB(C756/C755) |
| RE25 | 0700045M | CF 1/16W 2.2K-JB(C756/C755) |
| RE26 | 0700042M | CF 1/16W 1.2K-JB(C756/C755) |
| RJG1 | 0700027M | CF 1/16W 100-JB |
| RJG2 | 0700027M | CF 1/16W 100-JB |
| ROA2 | 0700046M | CF 1/16W 2.7K-JB |
| ROA3 | 0700032M | CF 1/16W 220-JB |
| | | **SWITCHES/RELAYS** |
| S001 | 2632851 | 5KEY TACT SWITCH |
| S002 | 2632901 | 1P TACT SWITCH(C756/C755/C750) |
| S003 | 2632901 | 1P TACT SWITCH |
| ! S901 | 2641222 | POWER RELAY |
| | | **SPEAKERS** |
| SP451 | GK00061 | SPEAKER 5X9(C755/C750) |
| SP451 | 2412518 | SPEAKER 09*05 2W(C053) |
| SP451 | 2735335 | OTHER MAGNETIC PARTS(C756) |
| SP452 | GK00061 | SPEAKER 5X9(C755/C750) |
| SP452 | 2412518 | SPEAKER 09*05 2W(C053) |
| SP452 | 2735335 | OTHER MAGNETIC PARTS(C756) |

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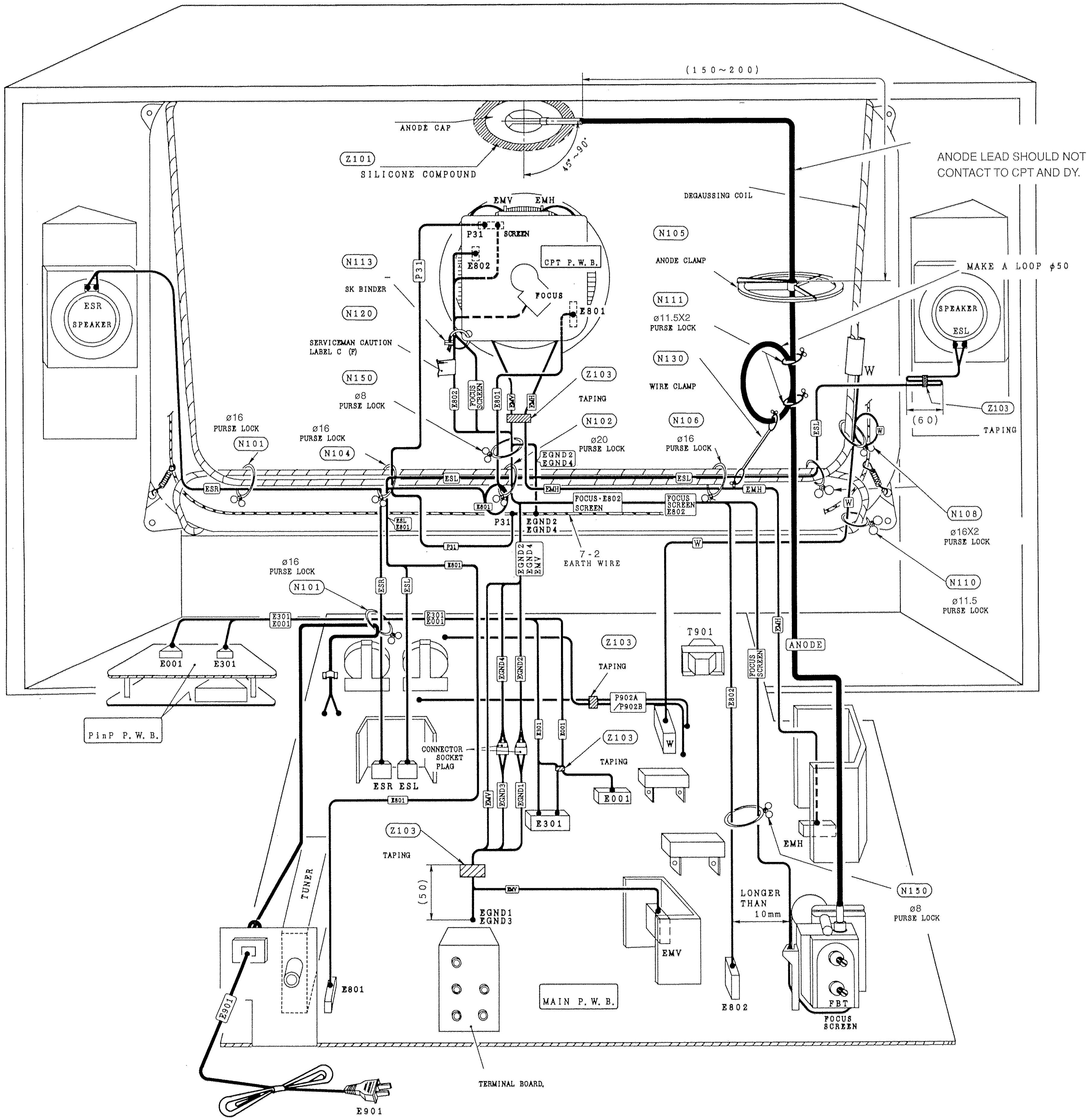
| SYMBOL NO. | PART NO. | PART DESCRIPTION | SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|---|---|---|
| | | **TRANSFORMERS** | #304 | 3727972 | POWER CORD HANGER(C053) |
| | | | #310 | H311071 | POWER CORD COVER 20V(C053) |
| T201 | 2143672 | IF COIL WITH 7 CASE 1:3 INCORE | #311 | NX00561 | P IN P FIXED PIECE 27V(C756/C755) |
| ⚠ T701 | 2260021 | HORIZONTAL DRIVING COIL(C053) | #350 | QX00101 | POWER CORD COVER 27V(C756/C755/C750) |
| ⚠ T701 | 2274353 | TRANS.-H.DRIVE(C756/C755/C750) | #601 | 3727972 | POWER CORD HANGER(C756/C755/C750) |
| ⚠ T702 | 2436777 | HFL1532G ASS(C756/C755/C750) | #650 | 3876121 | FBT SUPPORT CMT2195 PA(C756/C755/C750) |
| ⚠ T702 | 2436778 | HFL1532G ASS(C053) | #686 | H461171 | PATENT AND TELESONICS LABEL(27V) |
| T703 | 2276081 | H. DRIVE TRANS(C053) | #686 | H461171 | PATENT AND TELESONICS LABEL(C053) |
| T901 | 2124361 | DC NOISE FILTER(C756/C755/C750) | #802 | 4693491 | CANADA COVER LABEL CCT(C750) |
| ⚠ T902 | BT00292 | COIL(C756/C755/C750) | #888 | H390032 | CUSHION-NEOPLENE(C756) |
| T903 | 2124362 | DC.NOISE FILTER(C756/C755/C750) | #889 | 8441611 | HIMERON SHEET 240*18(C756) |
| T904 | 2215912 | POWER TRANSFORMER (83MA,14.5V)(C053) | #900 | 3810102 | PCB SUPPORT(C756/C755/C750) |
| | | | E001 | 2909238 | CONN.W/WIRE 08C-B2R0 L470(C756/C755) |
| | | **COLOR PICTURE TUBE** | E203 | 2784243 | DRY BATTERY SUM-3 (G) |
| | | | E301 | 2976661 | CONN. W/WIRE SEH 12J (L300)(C756/C755) |
| ⚠ V1 | DE00831 | CPT A68ADT25X02 (DARK TINT)(C755/C750) | E602 | 2908401 | CRT EARTH WIRE(C756) |
| ⚠ V1 | DE00841 | CPT A68KRQ58X(D) (HEDUS)(DARK TINT)(C756) | E602 | 2908403 | CPT GND WIRE(RCA1R)(C755/C750) |
| ⚠ V1 | 2471531 | CPT A51KQN61X (DARK TINT)(C053) | E603 | 2788084 | CRT EARTH WIRE 20INCH SF(C053) |
| | | | E604 | 2773672 | CF-MAGNET(C756) |
| | | **CRYSTALS** | E801 | EF02501 | CONNECTOR 06B-B2R5-431#5NC(C053) |
| | | | E801 | EF02502 | CONNECTOR 06B-B2R5-561#5NC(C756/C755/C750) |
| X001 | 2168931 | CRYSTAL HC-49/U-120MHZ | E802 | EF02511 | CONNECTOR 04B-B2R5-431#2NC(C053) |
| X201 | 2300477 | SAW FILTER HW2267 | E802 | EF02512 | CONNECTOR 04B-B2R5-471#2NC(C756/C755/C750) |
| X241 | 2167311 | FILTER CERAMIC (4.5MHZ) | E851 | 2953344 | CPT SOCKET |
| X242 | 2167201 | TRAP CERAMIC (4.5MHZ) | ⚠ E901 | 2745411 | AC POWER CORD |
| X243 | BN00031 | CERAMIC DISCRIMINATOR | E902A | EF02491 | CONNECTOR 01A-A0R0-181BROWN |
| X301 | HP00151 | COMB FILTER UNIT(C756/C755/C750) | E902B | EF02492 | CONNECTOR 01A-A0R0-181RED |
| X501 | 2791505 | CRYSTAL HC-491U 3.58MHZ | EA01 | 2974231S | CONN. W/WIRE SEH 9J L60 (C-B)(C756/C755) |
| X751 | 2168771 | X'TAL CSB503F30 | EA02 | 2974201S | CONN. W/WIRE SEH 8J L60 (C-B)(C756/C755) |
| XA01 | BP00171 | X'TAL 14R3X16THC-49/U(C756/C755) | EF901 | 2720641 | FUSE HOLDER |
| XAZ1 | 2167201 | TRAP CERAMIC (4.5MHZ)(C756/C755) | EGND1 | 2957792 | CONNECTOR(C756/C755/C750) |
| | | | EGND2 | 2957802 | CONNECTOR(C756/C755/C750) |
| | | **MISCELLANEOUS PARTS** | EMH | 2992233 | CONNECTOR 04C-N5R0-431-1,3(C755/C750) |
| | | | EMV | 2967059 | W/WIRE 3J MINI CONN(C755/C750) |
| #003 | 3739671 | BS CORD HOLDER NYLON 6 | ETP | 2122652M | FERRITE CORE(C756/C755/C750) |
| #040 | QD01801 | FRAME SASS'Y 27CX5B(C755/C750) | J301 | 2693841 | TERMINAL BOARD M3XU |
| #041 | QD01802 | FRAME SASS'Y 27CX6B(C756) | JSIN | 2983122 | S-SOCKET(C756/C755/C750) |
| #051 | QD01781 | FRAME 27CX5B(C755/C750) Sub QO' | JSL | 2976644 | CONNECTOR 02C-N2R5-821(C755/C750) |
| #052 | ~~QD01791~~ | FRAME 27CX6B(C756) Sub TO QD01802 | JSL | 2976643 | CONNECTOR 02C-N2R5-621(C053) |
| #081 | QD01771 | BACK COVER (C756/C755/C750) | JSL | 2976753 | CONN. W/WIRE EH 3J (L620)(C756) |
| #100 | 8781646 | SCREW 4 X 16 TAPPING(C053) | JSR | 2976654 | CONNECTOR 03C-N2R5-471-1,3(C755/C750) |
| #101 | 8781646 | SCREW 4 X 16 TAPPING(C053) | JSR | 2976653 | CONNECTOR 03C-N2R5-221-1,3(C053) |
| #102 | 4519503 | 3X12 B TAPPING SCREW SWCH15A (C053) | JSR | 2976763 | CONN. W/WIRE EH 4J (L680)(C756) |
| #103A | 4159423 | SCR NO 3X12 FL/FLT(C053) | N101 | 3701202 | PWB HOLDER G7-A PA |
| #104 | 4159425 | 3X16 TAPPING WITH WASHER SWRM (C053) | N101 | 3785511 | V LOCK 16(C756/C755/C750) |
| #105 | 4518376 | SCREW 6X25 TAPPING WITH WSR SAE(C053) | N101 | 3785502 | V LOCK 11.5(C053) |
| #110 | 4286581 | PVC WASHER 2.0T(C053) | N101 | 544510 | TERMINAL PIECE(C755/C750) |
| #111 | 8781646 | SCREW 4 X 16 TAPPING(C756/C755/C750) | N102 | QN00931 | CHASSIS MODEL LABEL (C756/C755/C750) |
| #112 | 8781646 | SCREW 4 X 16 TAPPING(C756) | N102 | QN00932 | CHASSIS LABEL M3XU(C053) |
| #115 | 4159427 | 3X10 SCREW WITH WASHER STEEL(C755/C750) | N102 | 3785522 | V LOCK 20(C756/C755/C750) |
| #152A | 4528355 | 6*30 TAPPING SCREW(C756) | N103 | 3705232 | ANODE CLAMPER 94V0 (101)(C053) |
| #152B | 4528351 | M6X30 TAP SCREW WITH WASHER SAE1(27V) | N104 | 3785511 | V LOCK 16(C756/C755/C750) |
| #180 | PC01182 | BUTTON 27CX6B(C756) | N105 | 3705232 | ANODE CLAMPER 94V0 (101)(C756/C755/C750) |
| #181 | PC01181 | BUTTON 27CX5B(C755/C750) | N106 | 3785511 | V LOCK 16(C756/C755/C750) |
| #182 | 8781646 | SCREW 4 X 16 TAPPING(C756/C755/C750) | N108 | 3785511 | V LOCK 16(C756/C755/C750) |
| #201 | 8781646 | SCREW 4 X 16 TAPPING(C756/C755/C750) | N108 | 3785502 | V LOCK 11.5(C053) |
| #201 | 3106729 | FRAME SUBASSEMBLY(C053) | N110 | 3785502 | V LOCK 11.5(C756/C755/C750) |
| #203 | 8781646 | SCREW 4 X 16 TAPPING(C756/C755/C750) | N111 | 3785502 | V LOCK 11.5(C756/C755/C750) |
| #204 | 4519508 | SCREW 3X20 TAPPING SCREW(C756/C755/C750) | N112 | 9374506 | WIRE UL1007 CSATR64 AWG22 1/0.64 FR-1 GR |
| #205 | 4519503 | 3X12 B TAPPING SCREW SWCH15A(27V) | N113 | 3763751 | SK BINDER(C756/C755/C750) |
| #207 | 3106231 | FRAME 20SA3B PS (C053) | N113 | 3763751 | SK BINDER(C053) |
| #210 | 3850663 | CHASSIS RAIL 20SA3B PS (C053) | N130 | 3700342 | WIRE CLAMP V0(C756/C755/C750) |
| #211 | 8781646 | SCREW 4 X 16 TAPPING(C756/C755) | N150 | 3728273 | PURSE LOCK (8)(C756/C755/C750) |
| #212 | 4286585H | PVC WASHER(C756/C755) | N401 | 3446863 | S HEAT SINK (M1-K) AL(C756/C755/C750) |
| #215 | 3874331 | FBT MTG HOLDER PS (C053) | N401 | QN00328 | SERVICEMAN WARNING LABEL A(27CX6B) |
| #220 | 3828091 | R/C LENS 20SA3B (C053) | N401 | 4778553 | SERVICEMAN WARNING LABEL(C053) |
| #222 | H311081 | SP SHEET 27CX6B(C756) | N401A | 4520881 | M3*8 SCREW WITH WASHER(C756/C755/C750) |
| #222 | 3273681 | CONTROL BUTTON 20SA3B (C053) | N401B | 8821234 | NUT-3(C756/C755/C750) |
| #250 | 3487425 | HITACHI BADGE (C756) | N403 | QN00329 | SERVICEMAN WARNING LABEL A (27CX5B) |
| #252 | KQ00212 | R/C LENS 27CX6B(C756) | N601 | 3442421 | HEAT SINK TC-30(C053) |
| #253 | KQ00211 | R/C LENS 27CX5B(C755/C750) | N601 | 3446864 | V.HEAT SINK M3LXU(C756/C755/C750) |
| #254 | 8781646 | SCREW 4 X 16 TAPPING(C756/C755/C750) | N601 | 4615641 | WEDGE(C756) |
| #302 | 3164683 | BACKCOVER 20SA3B(C053) | N601 | 4615642 | WEDGE(C053) |

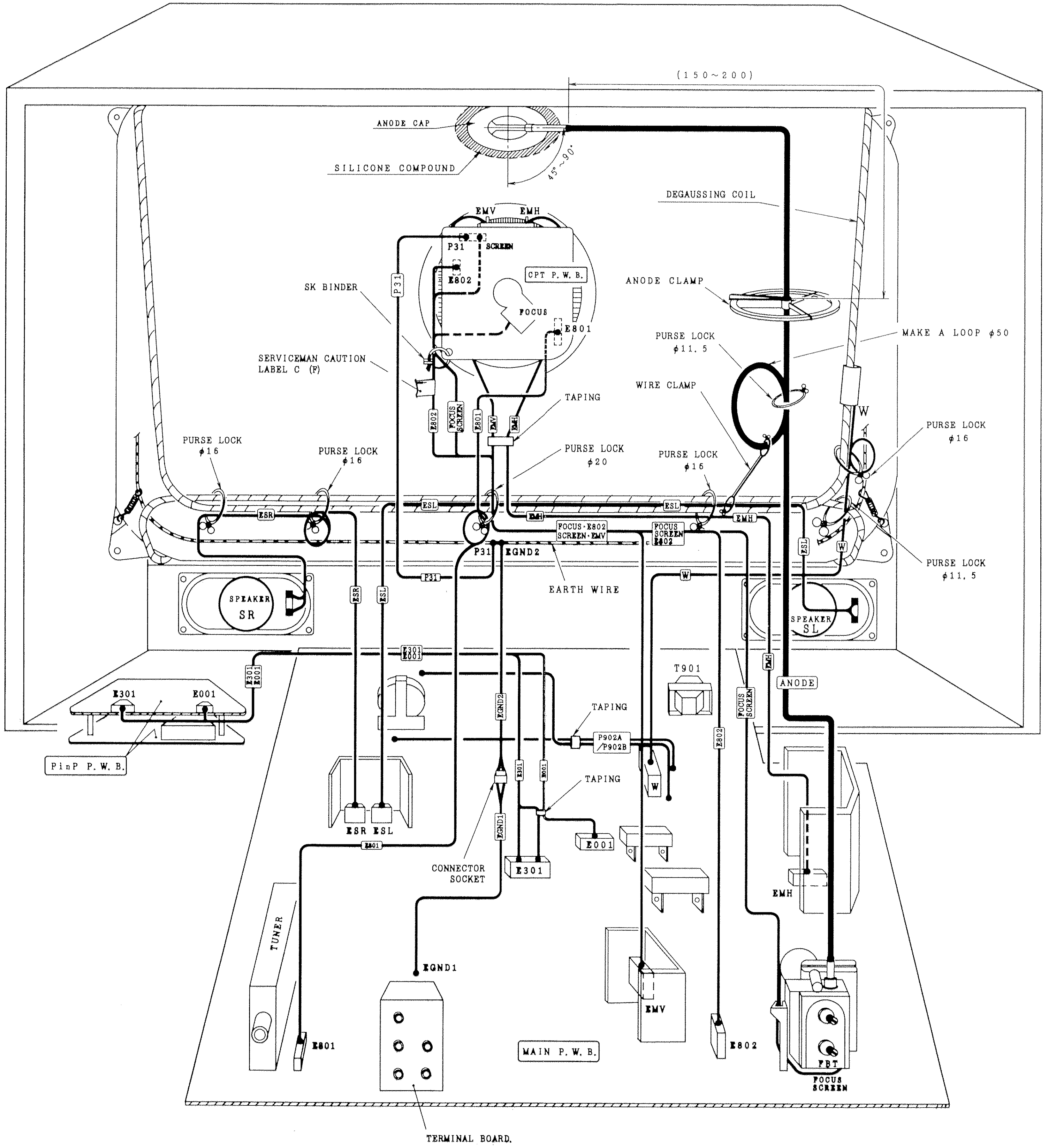
**PRODUCT SAFETY NOTE:** Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

| SYMBOL NO. | PART NO. | PART DESCRIPTION |
|---|---|---|
| N601A | 4519501 | SCREW 3X10 B TAPPING(C053) |
| N601A | 4520881 | M3*8 SCREW WITH WASHER(C756/C755/C750) |
| N601B | 8821234 | NUT-3(C756/C755/C750) |
| N602 | 3333921 | EARTH SPRING(C053) |
| N604 | 649009 | HOOK-30(C053) |
| N605 | 649009 | HOOK-30(C756/C755/C750) |
| N605 | 3763751 | SK BINDER(C053) |
| N606 | 3330941 | EARTH SPRING(C756/C755/C750) |
| N606 | 3763751 | SK BINDER(C053) |
| N609 | 3763751 | SK BINDER(C756/C755/C750) |
| N611 | 2772981 | FERRITE SHEET ASS'Y(C756/C755/C750) |
| N611 | 2772981 | FERRITE SHEET ASS'Y(C053) |
| N613 | 2772211 | MAG. PIECE(C756) |
| N702 | 3442421 | HEAT SINK TC-30(C053) |
| N702 | 3445542 | H.HEAT SINK HY09 A11DOP-H2(C756/C755/C750) |
| N702A | 4514061 | SCREW FLANGED 3*12(C756/C755/C750) |
| N702A | 4518771 | SCREW 3X10 TAPPING WITH WSR STEEL(C053) |
| N702B | 8821234 | NUT-3(C756/C755/C750) |
| N702C | 8813124 | SPRING WASHER-3(C756/C755/C750) |
| N702D | 4284311 | 2000 EARTH PIN(C756/C755/C750) |
| N702E | 4159411 | SCREW 3*8 KNURLED TAPPINGSWRM (C756/C755/C750) |
| N901 | 4289238 | HEAT SINK M3LXU(C053) |
| N901A | 4520883 | 3*12 SCREW WITH WASHER(C053) |
| N901B | 8821114 | NUT,3(C053) |
| N901D | 2787531 | MICA SHETT(C053) |
| NA01 | MD01161 | M3 PIP SHIELD CASE A(C756/C755) |
| NA02 | MD01171 | M3 PIP SHIELD CASE B(C756/C755) |
| NE901 | 3772201 | AC CORD HOLDER NYLON |
| NQ91 | 4276993 | VERTICAL HEAT SINK(C756/C755/C750) |
| NQ91A | 4520881 | M3*8 SCREW WITH WASHER(C756/C755/C750) |
| NT1 | 4518742 | M2.3X12 SCREW WITH WASHER STEEL |
| NT2 | 4243445 | G51 INSULATION WASHER PL-11T |
| NT3 | 4518753 | M2.3 NUT SWRM3 |
| P001 | 2675287 | PLUG PIN (PH 8P)(C756/C755) |
| P12C | 2902264 | PLUG PIN SUB MINI 5P(C756/C755/C750) |
| P301 | 2902252 | 12P PLUG PIN(C756/C755) |
| P31 | 2663131 | 2P PLUG PIN WITH BASE |
| P901 | 2782611 | CENTER PIN(C756/C755/C750) |
| P902 | 2782611 | CENTER PIN(C756/C755/C750) |
| PA01 | 2902248 | PLUG PIN SUB MINI9P(C756/C755) |
| PA02 | 2902247 | PLUG PIN SUB MINI 8P(C756/C755) |
| ⚠ PMH | 2665279 | 4P PLUG PIN |
| ⚠ PMV | 2663132 | 3P PLUG PIN WITH BASE |
| PSL | 2902261 | PLUGPIN SUB MINI 2P |
| PSR | 2902262 | PLUG PIN SUB MINI 3P |
| ⚠ PW | 2661751 | 2P PLUG PIN WITH BASE(C053) |
| ⚠ PW | 2661753 | 4P PLUG PIN WITH BASE(C756/C755/C750) |
| TP001 | EU00281 | TERMINAL PIN(C053) |
| U001 | 2574881 | REMOCON RECEIVER UNIT(GP1U781Q) |
| ⚠ U101 | HJ00081 | ET452A - Tuner |
| W91 | 9374575 | UL CSA1007-24HP CODE GREEN(C756/C755/C750) |
| Z057 | 9451164 | UL TUBE #10(C756/C755/C750) |
| Z0A2 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW (C756/C755/C750) |
| Z127 | 9449603 | NITTOH TAPE #747 |
| Z401 | 9414017 | SILICONE COMPOUND(G-746)(C756/C755/C750) |
| Z513 | 9485158 | HOT MELT (AX-1503C)(C756/C755/C750) |
| Z559 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YEL.(C756/C755/C750) |
| Z560 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YEL.(C756/C755/C750) |
| Z561 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YEL.(C756/C755/C750) |
| Z601 | 9414017 | SILICONE COMPOUND(G-746) |
| Z618 | 9451136 | UL CSA TUBE NO.8(C756/C755/C750) |
| Z701 | 9371901 | SCA COPPER WIRE 0.65(C756/C755/C750) |
| Z702 | 9414017 | SILICONE COMPOUND(G-746) |
| Z703 | 9485158 | HOT MELT (AX-1503C)(C053) |
| Z760 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YEL.(C756/C755/C750) |
| Z764 | 9451136 | UL CSA TUBE NO.8(C756/C755/C750) |
| Z765 | 9451136 | UL CSA TUBE NO.8(C756/C755/C750) |
| Z781 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YEL.(C756/C755/C750) |
| Z9 | 9413926 | SILICON RUBBER(C756/C755/C750) |
| Z901 | 9414017 | SILICONE COMPOUND(G-746)(C053) |
| Z901A | 9413926 | SILICON RUBBER(C756/C755/C750) |
| Z925 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YEL.(C756/C755/C750) |
| Z933 | 9413926 | SILICON RUBBER(C756/C755/C750) |
| ZA01 | 3787482 | PCB HOLDER (16L)(C756/C755) |
| ZA02 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW(C756/C755) |
| ZA03 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW(C756/C755) |
| ZC301 | 9374575 | UL CSA1007-24HP CODE GREEN(C756/C755) |
| ZC301B | 9485158 | HOT MELT (AX-1503C)(C756/C755/C750) |
| ZC310A | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW (C756/C755/C750) |
| ZE9 | 9449603 | NITTOH TAPE #747(C756/C755/C750) |
| ZE9B | 9563445 | EXCEED GLASS TUBE HG-2E 3.5(C756/C755/C750) |
| ZK16 | 9413926 | SILICON RUBBER(C756/C755/C750) |
| ZK17 | 9413926 | SILICON RUBBER(C756/C755/C750) |
| ZK51 | 9413926 | SILICON RUBBER(C756/C755/C750) |
| ZKAZ1 | 9374575 | UL CSA1007-24HP CODE GREEN(C756/C755) |
| ZKAZ2 | 9374575 | UL CSA1007-24HP CODE GREEN(C756/C755) |
| ZQ91 | 9414017 | SILICONE COMPOUND(G-746)(C756/C755/C750) |
| ZR030 | 9485158 | HOT MELT (AX-1503C)(C756/C755/C750) |
| ZR057 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YEL.(C756/C755/C750) |
| ZRA | 9449506 | SCOTCH TAPE NO.29 19MM(C756/C755) |
| ZRA73 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW(C756/C755) |
| ZRAZ3 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW(C756/C755) |
| ZRAZ4 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW(C756/C755) |
| ZRC03 | 9451104 | VARNISH CLOTH TUBE 0.8X1.8 YELLOW(C756/C755) |
| ZS1 | EU00301 | TERMINAL PIN(C053) |
| ZS2 | EY00341 | PLUG(C053) |
| ZS3 | EU00291 | TERMINAL PIN(C053) |
| ZS4 | EU00311 | TERMINAL PIN(C053) |

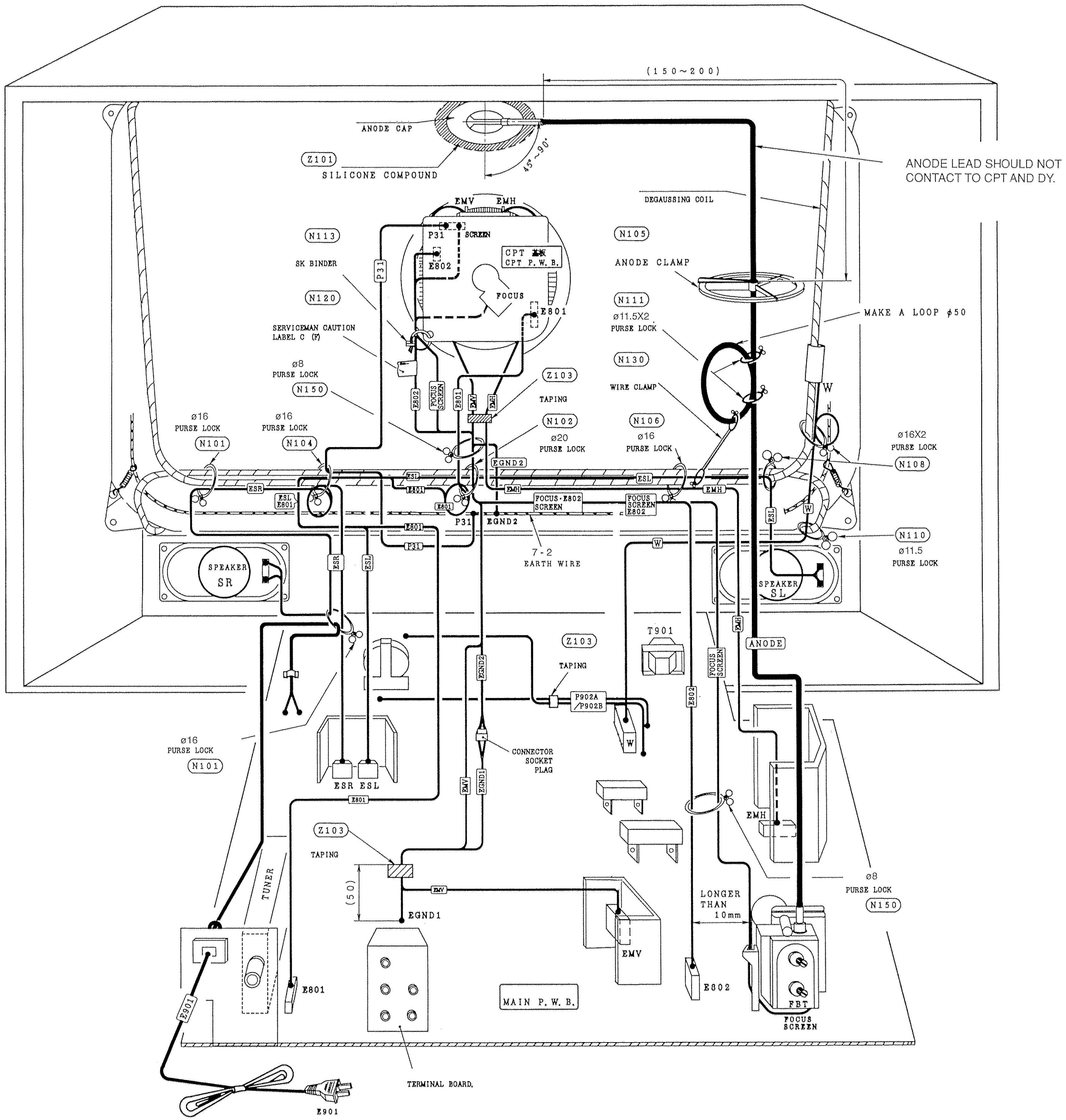
# WIRING DRAWING OF 27CX6B/C756 FINAL ASSEMBLY


(150~200)
ANODE CAP
Z101
SILICONE COMPOUND
45°~90°
ANODE LEAD SHOULD NOT CONTACT TO CPT AND DY.
DEGAUSSING COIL
EMV
EMH
P31
SCREEN
E802
CPT P. W. B.
FOCUS
E801
N113
SK BINDER
N120
SERVICEMAN CAUTION LABEL C (F)
N150
ø8 PURSE LOCK
N105
ANODE CLAMP
N111
ø11.5X2 PURSE LOCK
N130
WIRE CLAMP
MAKE A LOOP ø50
SPEAKER
ESL
ESR
SPEAKER
Z103
TAPING
(60)
Z103
TAPING
N102
ø20 PURSE LOCK
N106
ø16 PURSE LOCK
ø16 PURSE LOCK
N101
ø16 PURSE LOCK
N104
EGND2
EGND4
ESR
ESL
ESL
EMH
EMH
E801
FOCUS-E802 SCREEN
FOCUS SCREEN E802
ESL E801
P31
EGND2
EGND4
7-2 EARTH WIRE
P31
E801
EGND2 EGND4 EMV
W
N108
ø16X2 PURSE LOCK
N110
ø11.5 PURSE LOCK
ø16 PURSE LOCK
N101
ESR
ESL
E301 E001
E301 E001
E001
E301
PinP P. W. B.
Z103
TAPING
T901
ANODE
FOCUS SCREEN
EMH
P902A /P902B
W
EGND4
EGND2
E802
CONNECTOR SOCKET PLAG
ESR ESL
E801
E301
E001
Z103
TAPING
E001
EMV
EGND3
EGND1
E301
Z103
TAPING
(50)
EMV
EGND1
EGND3
TUNER
EMH
N150
ø8 PURSE LOCK
LONGER THAN 10mm
EMV
E801
MAIN P. W. B.
E802
FBT
FOCUS SCREEN
E901
E901
TERMINAL BOARD

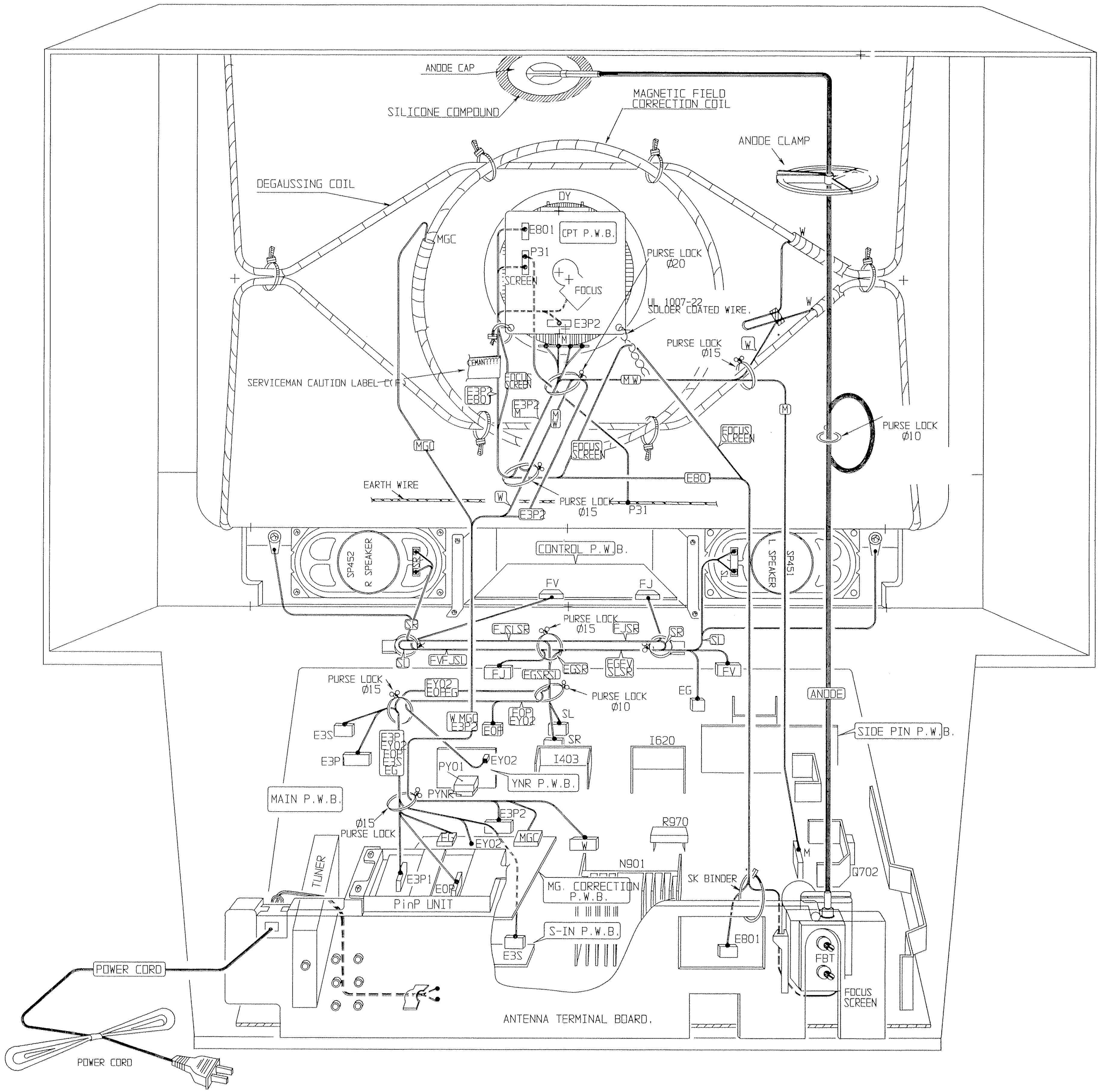
# WIRING DRAWING OF 27CX5B/C755 FINAL ASSEMBLY


(150~200)
ANODE CAP
SILICONE COMPOUND
45°~90°
DEGAUSSING COIL
EMV
EMH
P31
SCREEN
E802
CPT P. W. B.
FOCUS
E801
SK BINDER
ANODE CLAMP
MAKE A LOOP ϕ50
PURSE LOCK ϕ11.5
WIRE CLAMP
SERVICEMAN CAUTION LABEL C (F)
TAPING
PURSE LOCK ϕ16
PURSE LOCK ϕ16
PURSE LOCK ϕ20
PURSE LOCK ϕ16
PURSE LOCK ϕ16
PURSE LOCK ϕ11.5
W
ESR
ESL
EMH
FOCUS·E802 SCREEN·EMV
FOCUS SCREEN E802
P31
EGND2
EARTH WIRE
SPEAKER SR
SPEAKER SL
E301 E001
E301
E001
PinP P. W. B.
T901
ANODE
TAPING
P902A /P902B
TAPING
ESR ESL
E001
E301
CONNECTOR SOCKET
EGND1
EGND2
EMH
TUNER
E801
MAIN P. W. B.
EMV
E802
FBT
FOCUS SCREEN
TERMINAL BOARD.

# WIRING DRAWING OF 27CX25B/C750 FINAL ASSEMBLY


(150~200)
ANODE CAP
Z101
SILICONE COMPOUND
45°~90°
ANODE LEAD SHOULD NOT CONTACT TO CPT AND DY.
DEGAUSSING COIL
EMV
EMH
P31
SCREEN
CPT 基板
CPT P.W.B.
E802
FOCUS
E801
N113
SK BINDER
N120
SERVICEMAN CAUTION LABEL C (F)
ø8
PURSE LOCK
N150
N105
ANODE CLAMP
N111
ø11.5X2
PURSE LOCK
MAKE A LOOP ø50
N130
WIRE CLAMP
Z103
TAPING
N102
ø20
PURSE LOCK
N106
ø16
PURSE LOCK
ø16
PURSE LOCK
N101
ø16
PURSE LOCK
N104
ø16X2
PURSE LOCK
N108
W
N110
ø11.5
PURSE LOCK
E802
FOCUS SCREEN
E801
EMV
EMH
EGND2
ESL
ESR
ESL E801
E801
EMH
FOCUS・E802 SCREEN
FOCUS SCREEN E802
P31
EGND2
7-2
EARTH WIRE
W
ESR
ESL
SPEAKER SR
SPEAKER SL
ANODE
T901
Z103
TAPING
P902A /P902B
W
EGND2
CONNECTOR SOCKET PLAG
ESR ESL
E801
EMV
EGND1
ø16
PURSE LOCK
N101
TUNER
Z103
TAPING
(50)
EMV
EGND1
EMH
EMV
E901
E801
MAIN P.W.B.
LONGER THAN 10mm
E802
ø8
PURSE LOCK
N150
FBT
FOCUS
SCREEN
TERMINAL BOARD
E901

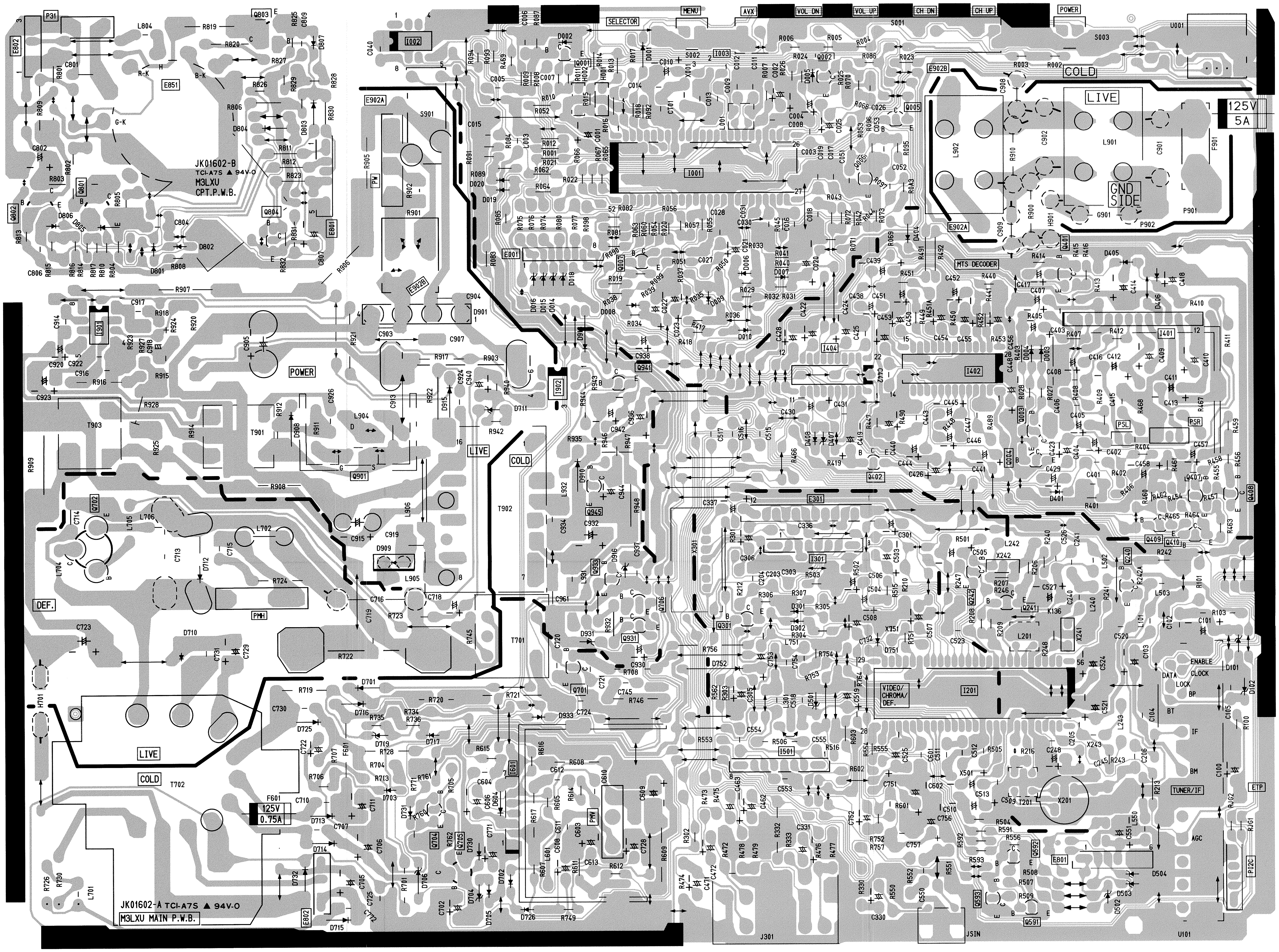
# WIRING DRAWING OF 20SA3B/C053 FINAL ASSEMBLY


ANODE CAP
SILICONE COMPOUND
MAGNETIC FIELD CORRECTION COIL
ANODE CLAMP
DEGAUSSING COIL
DY
MGC
E801
CPT P.W.B.
P31
SCREEN
FOCUS
PURSE LOCK Ø20
UL 1007-22 SOLDER COATED WIRE.
E3P2
PURSE LOCK Ø15
W
W
W
SERVICEMAN CAUTION LABEL
FOCUS SCREEN
E3P2 E801
E3P2 M
M W
M.W
M
FOCUS SCREEN
FOCUS SCREEN
PURSE LOCK Ø10
MGC
E80
EARTH WIRE
W
PURSE LOCK Ø15
E3P2
P31
SP452 R SPEAKER
CONTROL P.W.B.
L SPEAKER SP451
SR
SL
FV
FJ
PURSE LOCK Ø15
EJSLSR
EJSR
SR
SL
SD
EVFJSD
FJ
EGSRSD
EGSR
EGFV SLSR
FV
PURSE LOCK Ø15
EY02 EOPEG
PURSE LOCK Ø10
EG
ANODE
SIDE PIN P.W.B.
E3S
E3P
W.MGC E3P2
EOH
EOP EY02
SL
SR
I620
E3P EY02 EOP E3S EG
PY01
EY02
I403
YNR P.W.B.
MAIN P.W.B.
PYNR
Ø15 PURSE LOCK
E3P2
R970
EY02
MGC
W
M
TUNER
E3P1
EOP
PinP UNIT
N901
MG. CORRECTION P.W.B.
SK BINDER
Q702
S-IN P.W.B.
E801
E3S
FBT
FOCUS SCREEN
POWER CORD
POWER CORD
ANTENNA TERMINAL BOARD.

# PRINTED WIRING BOARD FOIL PATTERN

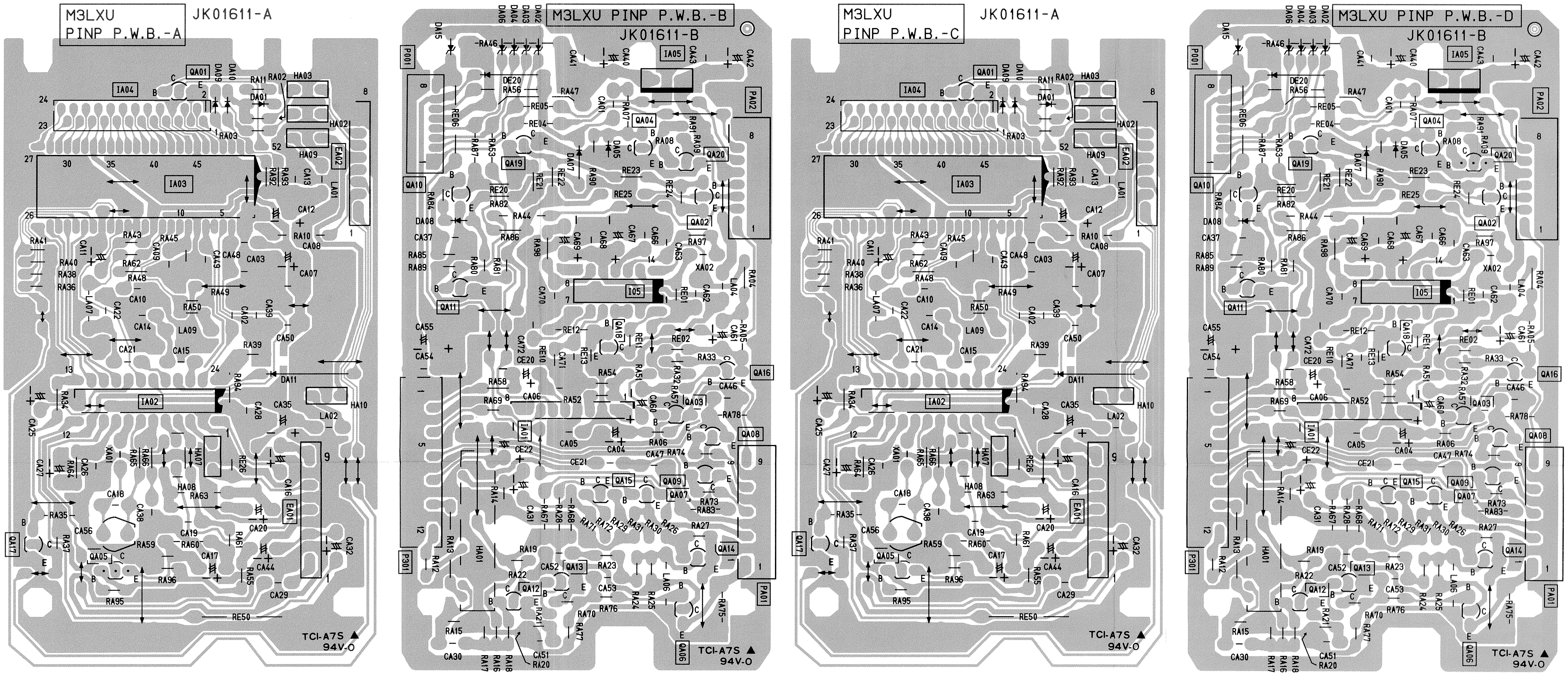
## M3LXU MAIN P.W.B.

### M3LXU CPT PWB


JK01602-B
TCI-A7S ▲ 94V-0
M3LXU
CPT.P.W.B.
SELECTOR
MENU
AVX
VOL DN
VOL UP
CH DN
CH UP
POWER
COLD
LIVE
125V
5A
GND
SIDE
MTS DECODER
POWER
LIVE
COLD
DEF.
VIDEO/
CHROMA/
DEF.
TUNER/IF
ENABLE
DATA
CLOCK
LOCK
BP
BT
IF
BM
AGC
LIVE
COLD
125V
0.75A
JK01602-A TCI-A7S ▲ 94V-0
M3LXU MAIN P.W.B.
J301
JSIN
U101
U001

# PRINTED WIRING BOARD FOIL PATTERN

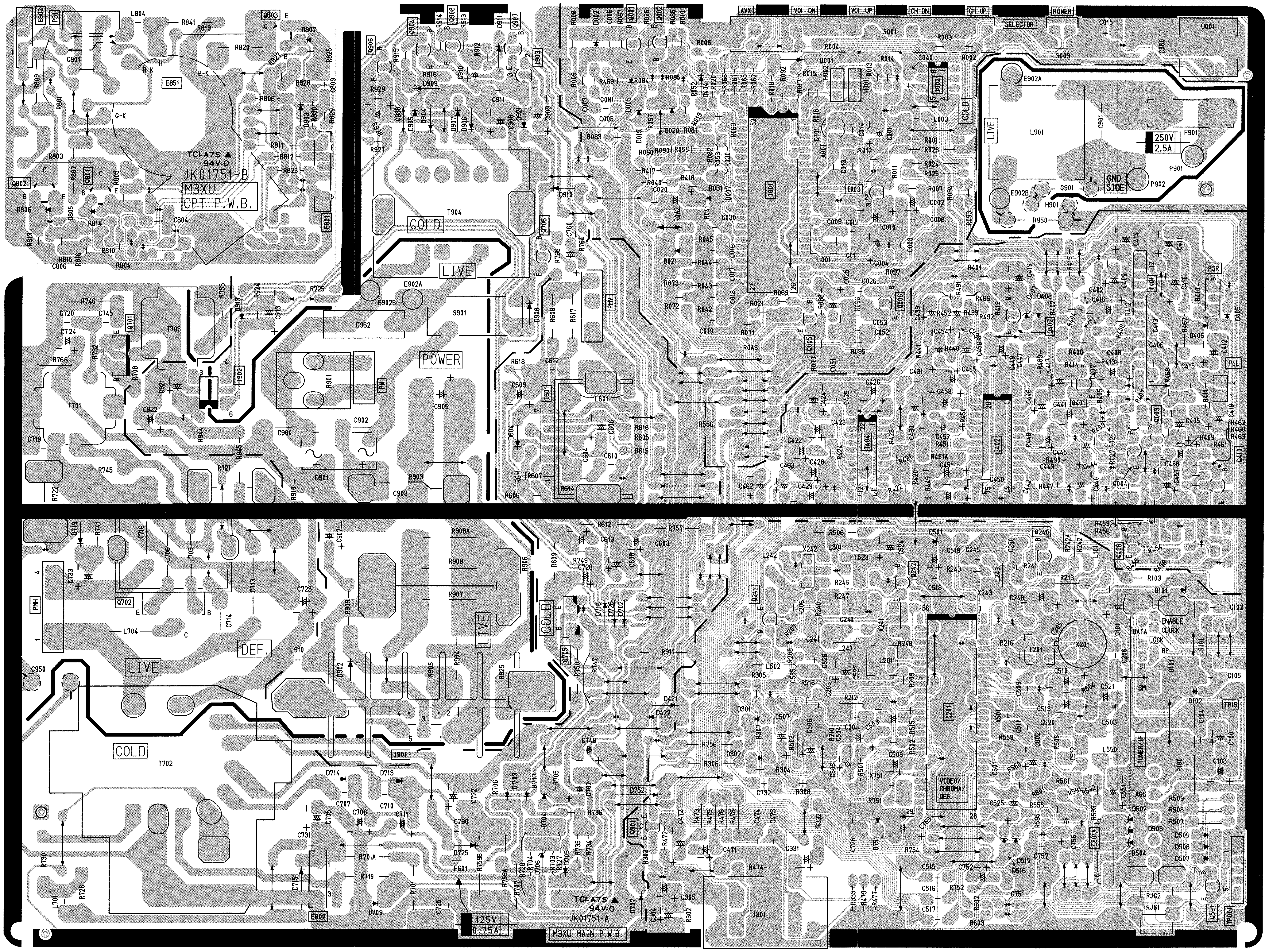
## M3LXU P in P P.W.B


M3LXU PINP P.W.B.-A
JK01611-A
M3LXU PINP P.W.B.-B
JK01611-B
M3LXU PINP P.W.B.-C
JK01611-A
M3LXU PINP P.W.B.-D
JK01611-B
TCI-A7S ▲ 94V-0

# PRINTED WIRING BOARD FOIL PATTERN

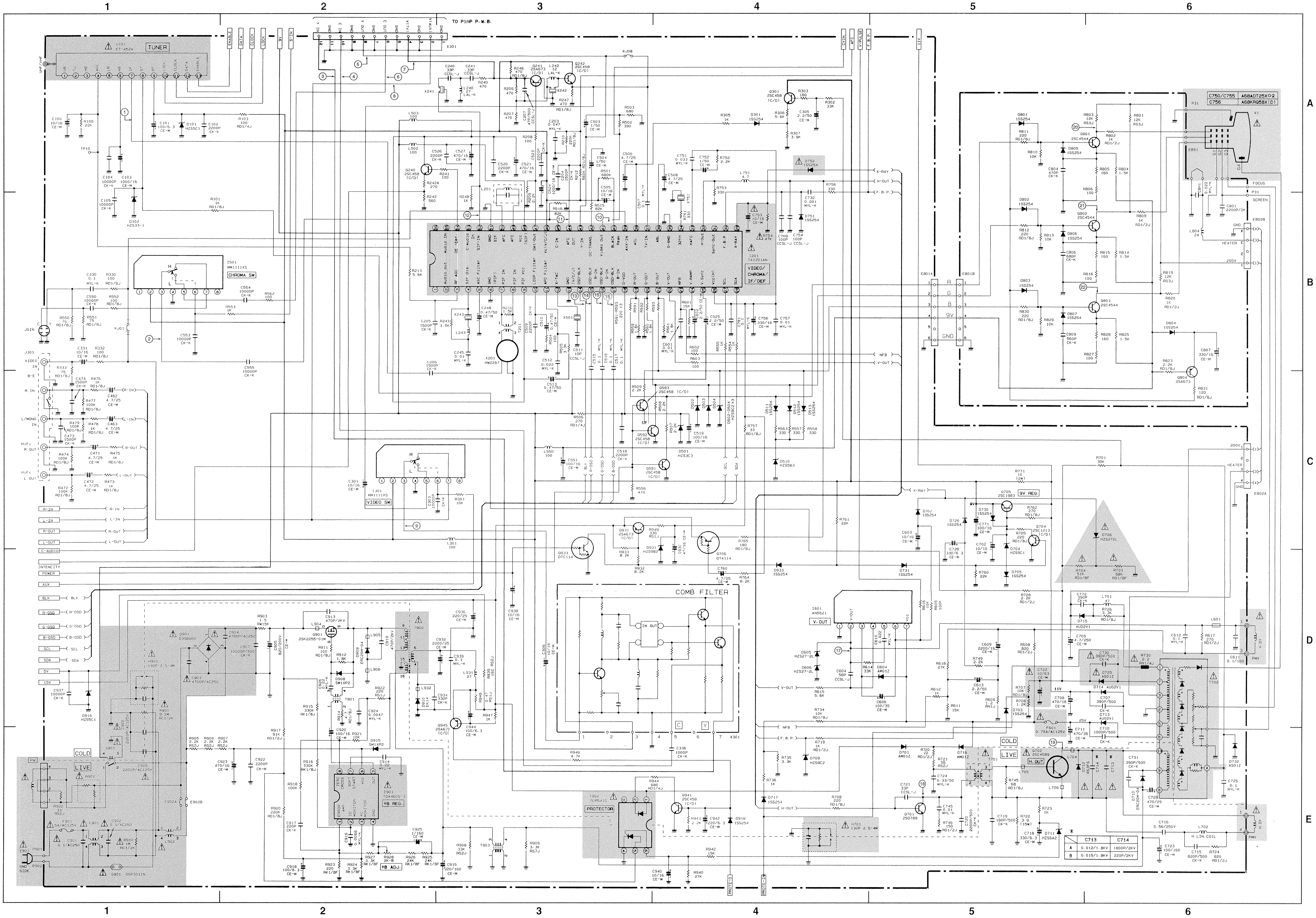
## M3XU MAIN P.W.B.

### M3XU CPT PWB


TCI-A7S ▲ 94V-0
JK01751-B
M3XU CPT P.W.B.
E851
E801
E802
P311
Q801
Q802
Q803
L804
R841
R819
R820
T904
COLD
LIVE
POWER
S901
E902A
E902B
C962
R901
C905
C902
C904
D901
R903
C903
T703
T701
PW
PMV
L601
I601
AVX
VOL DN
VOL UP
CH DN
CH UP
POWER
SELECTOR
S001
S003
U001
I001
X001
I002
I003
L901
F901
250V 2.5A
GND SIDE
P901
P902
E902A
E902B
G901
H901
R950
PSR
PSL
I401
I402
I404
Q401
Q402
Q403
Q410
Q004
Q005
Q006
Q240
Q241
Q242
X242
X243
L242
L243
L201
I201
X201
T201
U101
D101
ENABLE
CLOCK
DATA
LOCK
BP
BT
BM
TP15
TUNER/IF
AGC
VIDEO/ CHROMA/ DEF.
X501
X751
L550
L503
T702
DEF.
LIVE
COLD
L910
I901
C950
L704
Q702
Q705
Q301
D752
J301
F601
125V 0.75A
TCI-A7S ▲ 94V-0
JK01751-A
M3XU MAIN P.W.B.
E802
E801A
RJG1
RJG2
Q591
TP001

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

# CIRCUIT SCHEMATIC DIAGRAM OF 27CX25B/C750, 27CX5B/C755, 27CX6B/C756


1
2
3
4
5
6
A
B
C
D
E
TUNER
TO PinP P.W.B.
I501 MM1111XS
CHROMA SW
I301 MM1111XS
VIDEO SW
I201 TA1201AN
VIDEO/CHROMA/IF/DEF
X201 HA2287
COMB FILTER
IN OUT
I601 AN5521
V.OUT
9V REG.
I901 TDA4605-3
+B REG.
PROTECTOR
COLD
LIVE
H.OUT
E901
S901 SDF301IN
P31
C750/C755 A68KDT25X02
C756 A68KRQ58X(D)
V1
FOCUS
SCREEN
HEATER
200V
GND
R
G
B
9V
GND
E801A
E801B
E802A
E802B
C713
C714
A 0.012/1.6KV 1800P/2KV
B 0.015/1.6KV 220P/2KV
J301
VIDEO IN
R IN
L/MONO IN
HiFi R OUT
HiFi L OUT
R-IN
L-IN
R-OUT
L-OUT
C-AUDIO
INTENCITY
POWER
AUX
BLK
R-OSD
G-OSD
B-OSD
SCL
SDA
5V
15V
X-RAY
H-OUT
F.B.P.
V-OUT
NFB
PWH
PWV
H.DY
V.DY
H.LIN COIL
PROTECT

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I001 | 1 | 4.9 |
| | 2 | 4.9 |
| | 3 | 5.1 |
| | 4 | 0.9 |
| | 5 | 0.9 |
| | 6 | 0.9 |
| | 7 | 5.2 |
| | 8 | 5.1 |
| | 9 | 0 |
| | 10 | 2.5 |
| | 11 | 2.7 |
| | 12 | 5.3 |
| | 13 | 3.2 |
| | 14 | 5.3 |
| | 15 | 0.4 |
| | 16 | 0.2 |
| | 17 | 5.3 |
| | 18 | 2.5 |
| | 19 | 2.5 |
| | 20 | 2.6 |
| | 21 | 5.3 |
| | 22 | 0 |
| | 23 | 2.9 |
| | 24 | 5 |
| | 25 | 4.3 |
| | 26 | 0 |
| | 27 | 0.1 |
| | 28 | 0.1 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I001 | 29 | 0.1 |
| | 30 | 0.3 |
| | 31 | 0.1 |
| | 32 | 1.6 |
| | 33 | 5.4 |
| | 34 | 5.5 |
| | 35 | 0.2 |
| | 36 | 0 |
| | 37 | 0.1 |
| | 38 | 0.1 |
| | 39 | 0.1 |
| | 40 | 0.1 |
| | 41 | 0 |
| | 42 | 5.3 |
| | 43 | 5.2 |
| | 44 | 5.2 |
| | 45 | 5.2 |
| | 46 | 5.2 |
| | 47 | 0.1 |
| | 48 | 0.1 |
| | 49 | 0 |
| | 50 | 0.3 |
| | 51 | 5.1 |
| | 52 | 5.1 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I002 | 1 | 0 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 5 |
| | 6 | 5 |
| | 7 | 0 |
| | 8 | 5.3 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I003 | 1 | 5.3 |
| | 2 | 0 |
| | 3 | 5.3 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I201 | 1 | 4.1 |
| | 2 | 4.1 |
| | 3 | 3.3 |
| | 4 | 3.3 |
| | 5 | 4.5 |
| | 6 | 0 |
| | 7 | 2.1 |
| | 8 | 2.1 |
| | 9 | 9.3 |
| | 10 | 4.6 |
| | 11 | 6 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I201 | 12 | 5 |
| | 13 | 0 |
| | 14 | 0.9 |
| | 15 | 4.9 |
| | 16 | 4.8 |
| | 17 | 4.8 |
| | 18 | 3.8 |
| | 19 | 2.4 |
| | 20 | 2.5 |
| | 21 | 2.7 |
| | 22 | 0.8 |
| | 23 | 4.6 |
| | 24 | 4.6 |
| | 25 | 5.7 |
| | 26 | 8.2 |
| | 27 | 5 |
| | 28 | 5 |
| | 29 | 0.7 |
| | 30 | 1.6 |
| | 31 | 0.1 |
| | 32 | 1 |
| | 33 | 6.8 |
| | 34 | 5.3 |
| | 35 | 0 |
| | 36 | 3.2 |
| | 37 | 3.3 |
| | 38 | 4.1 |
| | 39 | 1.6 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I201 | 40 | 5.3 |
| | 41 | 2.9 |
| | 42 | 4.8 |
| | 43 | 4.7 |
| | 44 | 3.3 |
| | 45 | 2.7 |
| | 46 | 9.2 |
| | 47 | 4 |
| | 48 | 9.3 |
| | 49 | 8.2 |
| | 50 | 8.2 |
| | 51 | 0 |
| | 52 | 0 |
| | 53 | 2.9 |
| | 54 | 4 |
| | 55 | 2.9 |
| | 56 | 2.9 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I301 | 1 | 0 |
| | 2 | 9.1 |
| | 3 | 4.4 |
| | 4 | 0 |
| | 5 | 5.1 |
| | 6 | 0.1 |
| | 7 | 4 |
| | 8 | 0 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I401 | 1 | 1.3 |
| | 2 | 0 |
| | 3 | 16.9 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 1.3 |
| | 7 | 8.9 |
| | 8 | 16 |
| | 9 | 0 |
| | 10 | 17.2 |
| | 11 | 0 |
| | 12 | 8.9 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I402 | 1 | 9.1 |
| | 2 | 4.6 |
| | 3 | 4.6 |
| | 4 | 4.6 |
| | 5 | 4.6 |
| | 6 | 4.6 |
| | 7 | 4.6 |
| | 8 | 4.4 |
| | 9 | 5.7 |
| | 10 | 0.1 |
| | 11 | 3.3 |
| | 12 | 4.6 |
| | 13 | 4.6 |
| | 14 | 0 |
| | 15 | 5 |
| | 16 | 5 |
| | 17 | 0 |
| | 18 | 4.6 |
| | 19 | 4.6 |
| | 20 | 4.7 |
| | 21 | 1.3 |
| | 22 | 5.2 |
| | 23 | 5.2 |
| | 24 | 4.6 |
| | 25 | 4.6 |
| | 26 | 4.6 |
| | 27 | 4.6 |
| | 28 | 4.9 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I404 | 1 | 0 |
| | 2 | 0 |
| | 3 | 4.6 |
| | 4 | 0.1 |
| | 5 | 4.7 |
| | 6 | 4.7 |
| | 7 | 0.1 |
| | 8 | 0.1 |
| | 9 | 4.6 |
| | 10 | 0.1 |
| | 11 | 2.6 |
| | 12 | 2.6 |
| | 13 | 0.1 |
| | 14 | 4.1 |
| | 15 | 2.5 |
| | 16 | 0.1 |
| | 17 | 4.7 |
| | 18 | 4.7 |
| | 19 | 0.1 |
| | 20 | 4.6 |
| | 21 | 9.1 |
| | 22 | 4.6 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I501 | 1 | 0 |
| | 2 | 9.3 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 5.2 |
| | 6 | 0 |
| | 7 | 0 |
| | 8 | 0 |

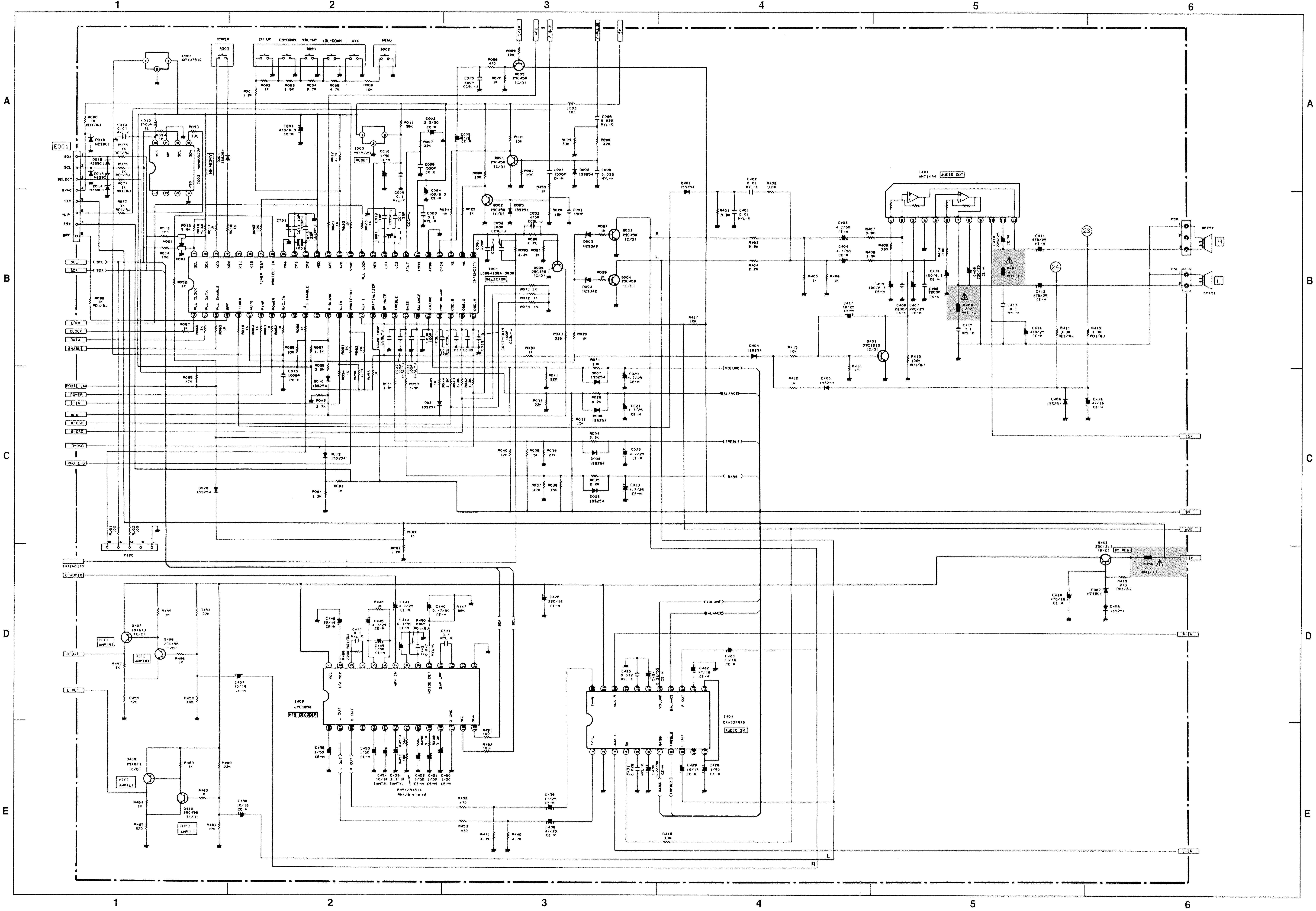
| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I601 | 1 | 0 |
| | 2 | 12.5 |
| | 3 | 26.8 |
| | 4 | 0.8 |
| | 5 | 0 |
| | 6 | 2.1 |
| | 7 | 25.9 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I901 | 1 | 0.4 |
| | 2 | 1.2 |
| | 3 | 1.8 |
| | 4 | 0 |
| | 5 | 6.1 |
| | 6 | 13.1 |
| | 7 | 1.8 |
| | 8 | 0.3 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I902 | 1 | 17.3 |
| | 2 | 16.7 |
| | 3 | 0 |
| | 4 | -14.7 |
| | 5 | 82 |
| | 6 | -14.7 |

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

# CIRCUIT SCHEMATIC DIAGRAM OF 27CX25B/C750, 27CX5B/C755, 27CX6B/C756



- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

| Circuit No. | Pin . No | DC Voltage Vdc |
|---|---|---|
| **Q001** | B | 0 |
| | C | 5 |
| | E | 0 |
| **Q002** | B | 0 |
| | C | 4.4 |
| | E | 0 |
| **Q003** | B | 0 |
| | C | 0 |
| | E | 0 |
| **Q004** | B | 0 |
| | C | 0 |
| | E | 0 |
| **Q005** | B | 2.9 |
| | C | 9.2 |
| | E | 2.2 |
| **Q006** | B | 0 |
| | C | 0.9 |
| | E | 0 |
| **Q240** | B | 3.9 |
| | C | 9.2 |
| | E | 3.2 |
| **Q241** | B | 4 |
| | C | 0 |
| | E | 4.6 |
| **Q242** | B | 2.4 |
| | C | 9.2 |
| | E | 1.7 |

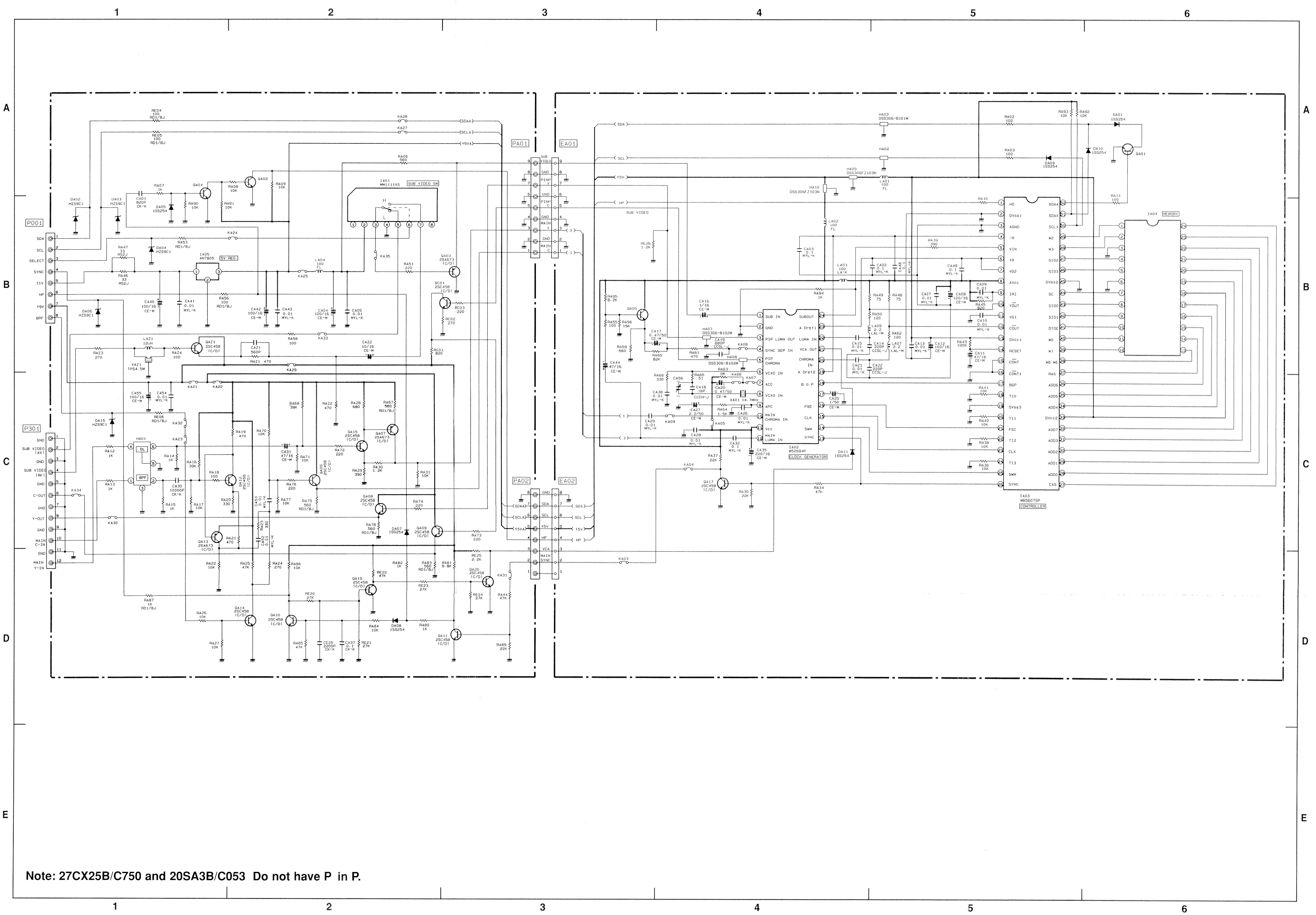
| Circuit No. | Pin . No | DC Voltage Vdc |
|---|---|---|
| **Q301** | B | 9.8 |
| | C | 9.2 |
| | E | 9.2 |
| **Q401** | B | 0 |
| | C | 16.9 |
| | E | 0 |
| **Q402** | B | 9.8 |
| | C | 11.1 |
| | E | 9.1 |
| **Q407** | B | 8.4 |
| | C | 4.2 |
| | E | 9.1 |
| **Q408** | B | 2.8 |
| | C | 8.4 |
| | E | 2.2 |
| **Q409** | B | 8.4 |
| | C | 4.2 |
| | E | 9.1 |
| **Q410** | B | 2.8 |
| | C | 8.4 |
| | E | 2.2 |
| **Q591** | B | 0 |
| | C | 2.9 |
| | E | 0 |
| **Q592** | B | 0 |
| | C | 0.6 |
| | E | 0 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **Q593** | B | 0 |
| | C | 3.4 |
| | E | 0 |
| **Q701** | B | 0.4 |
| | C | 15.9 |
| | E | 0 |
| **Q702** | B | 3 |
| | C | 116.3 |
| | E | 3.4 |
| **Q704** | B | 0.3 |
| | C | 0 |
| | E | 0 |
| **Q705** | B | 9.9 |
| | C | 11.3 |
| | E | 0 |
| **Q706** | B | 17.2 |
| | C | 1 |
| | E | 17.2 |
| **Q801** | B | 3 |
| | C | 154.5 |
| | E | 2.6 |
| **Q802** | B | 3.2 |
| | C | 148.6 |
| | E | 2.7 |
| **Q803** | B | 3.2 |
| | C | 144.3 |
| | E | 2.8 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **Q804** | B | 9.2 |
| | C | -0.4 |
| | E | 9.2 |
| **Q901** | G | 102 |
| | D | 168 |
| | S | 96.8 |
| **Q931** | B | 16.5 |
| | C | 17.2 |
| | E | 17.3 |
| **Q933** | B | 4.7 |
| | C | 0.1 |
| | E | 0 |
| **Q941** | B | 0 |
| | C | 17.1 |
| | E | 0 |
| **Q945** | B | 17.3 |
| | C | 0 |
| | E | 17.3 |

# CIRCUIT SCHEMATIC DIAGRAM OF P in P

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



1
2
3
4
5
6
A
B
C
D
E
P001
SDA
SCL
SELECT
SYNC
11V
HP
+9V
BPF
P301
GND
SUB VIDEO (AV)
GND
SUB VIDEO (RF)
GND
C-OUT
GND
Y-OUT
GND
MAIN C-IN
GND
MAIN Y-IN
IA01
MM1115XS
SUB VIDEO 5V
IA05
AN7805
5V REG
HA01
DL
BPF
PA01
EA01
PA02
EA02
SUB VIDEO
SDA
SCL
+5V
HP
VCA
MAIN SYNC
IA02
M52694P
CLOCK GENERATOR
SUB IN
GND
PIP LUMA OUT
SYNC SEP IN
PIP CHROMA
VCXO IN
ACC
VCXO IN
APC
MAIN CHROMA IN
VCC
MAIN LUMA IN
SUBOUT
A Dref1
LUMA IN
VCA OUT
CHROMA IN
A Dref2
B.G.P
FSC
CLK
SWH
SYNC
X401 14.7MHz
IA03
M65607SP
CONTROLLER
HD
DVss1
AGND
-R
VIN
+R
VG2
AVcc
IRI
YOUT
VG1
COUT
DVcc1
RESET
CONT
CONT1
BGP
T10
DVss3
T11
FSC
T12
CLK
T13
SWH
SYNC
SDAA
SDAX
SCLX
W2
W3
SIO2
SIO3
DVss2
SC
SIO0
SIO1
DTOE
WO
W1
WB WE
RAS
ADD6
ADD5
ADD4
DVcc2
ADD7
ADD3
ADD2
ADD1
ADD0
CAS
IA04
MEMORY

Note: 27CX25B/C750 and 20SA3B/C053  Do not have P in P.

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA01** | 1 | 0 |
| | 2 | 5.1 |
| | 3 | 2.1 |
| | 4 | 0 |
| | 5 | 4 |
| | 6 | 4.7 |
| | 7 | 2.9 |
| | 8 | 0 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA02** | 1 | 3 |
| | 2 | 0 |
| | 3 | 1.9 |
| | 4 | 3.2 |
| | 5 | 1.4 |
| | 6 | 3.5 |
| | 7 | 4.3 |
| | 8 | 2.9 |
| | 9 | 2.5 |
| | 10 | 2.9 |
| | 11 | 0 |
| | 12 | 3.5 |
| | 13 | 1.2 |
| | 14 | 0 |
| | 15 | 1.9 |
| | 16 | 2 |
| | 17 | 0 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA02** | 18 | 0.2 |
| | 19 | 2.6 |
| | 20 | 0 |
| | 21 | 3.3 |
| | 22 | 0 |
| | 23 | 0 |
| | 24 | 3 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA03** | 1 | 0.6 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 3.8 |
| | 7 | 3.8 |
| | 8 | 0 |
| | 9 | 3.8 |
| | 10 | 1.5 |
| | 11 | 2.2 |
| | 12 | 4.6 |
| | 13 | 5 |
| | 14 | 5 |
| | 15 | 0 |
| | 16 | 1.5 |
| | 17 | 0.2 |
| | 18 | 0 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA03** | 19 | 0 |
| | 20 | 5 |
| | 21 | 2 |
| | 22 | 0 |
| | 23 | 0 |
| | 24 | 0 |
| | 25 | 0 |
| | 26 | 1.2 |
| | 27 | 4.3 |
| | 28 | 2.1 |
| | 29 | 2.5 |
| | 30 | 2.8 |
| | 31 | 3 |
| | 32 | 0.6 |
| | 33 | 5.1 |
| | 34 | 3 |
| | 35 | 2.9 |
| | 36 | 2.5 |
| | 37 | 3.9 |
| | 38 | 4 |
| | 39 | 2.3 |
| | 40 | 2.9 |
| | 41 | 5 |
| | 42 | 1.2 |
| | 43 | 0.6 |
| | 44 | 0.4 |
| | 45 | 0 |
| | 46 | 0.9 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA03** | 47 | 0.6 |
| | 48 | 1.5 |
| | 49 | 2.5 |
| | 50 | 4.8 |
| | 51 | 4.8 |
| | 52 | 0 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA04** | 1 | 2.5 |
| | 2 | 1.5 |
| | 3 | 0 |
| | 4 | 0.6 |
| | 5 | 0.7 |
| | 6 | 0 |
| | 7 | 0.4 |
| | 8 | 0.6 |
| | 9 | 3.8 |
| | 10 | 5 |
| | 11 | 2.8 |
| | 12 | 2.4 |
| | 13 | 4 |
| | 14 | 3.9 |
| | 15 | 2.5 |
| | 16 | 2.9 |
| | 17 | 3 |
| | 18 | 5 |
| | 19 | 0.6 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA04** | 20 | 3 |
| | 21 | 2.8 |
| | 22 | 2.4 |
| | 23 | 2.1 |
| | 24 | 4.3 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **IA05** | 1 | 8.6 |
| | 2 | 0 |
| | 3 | 5 |

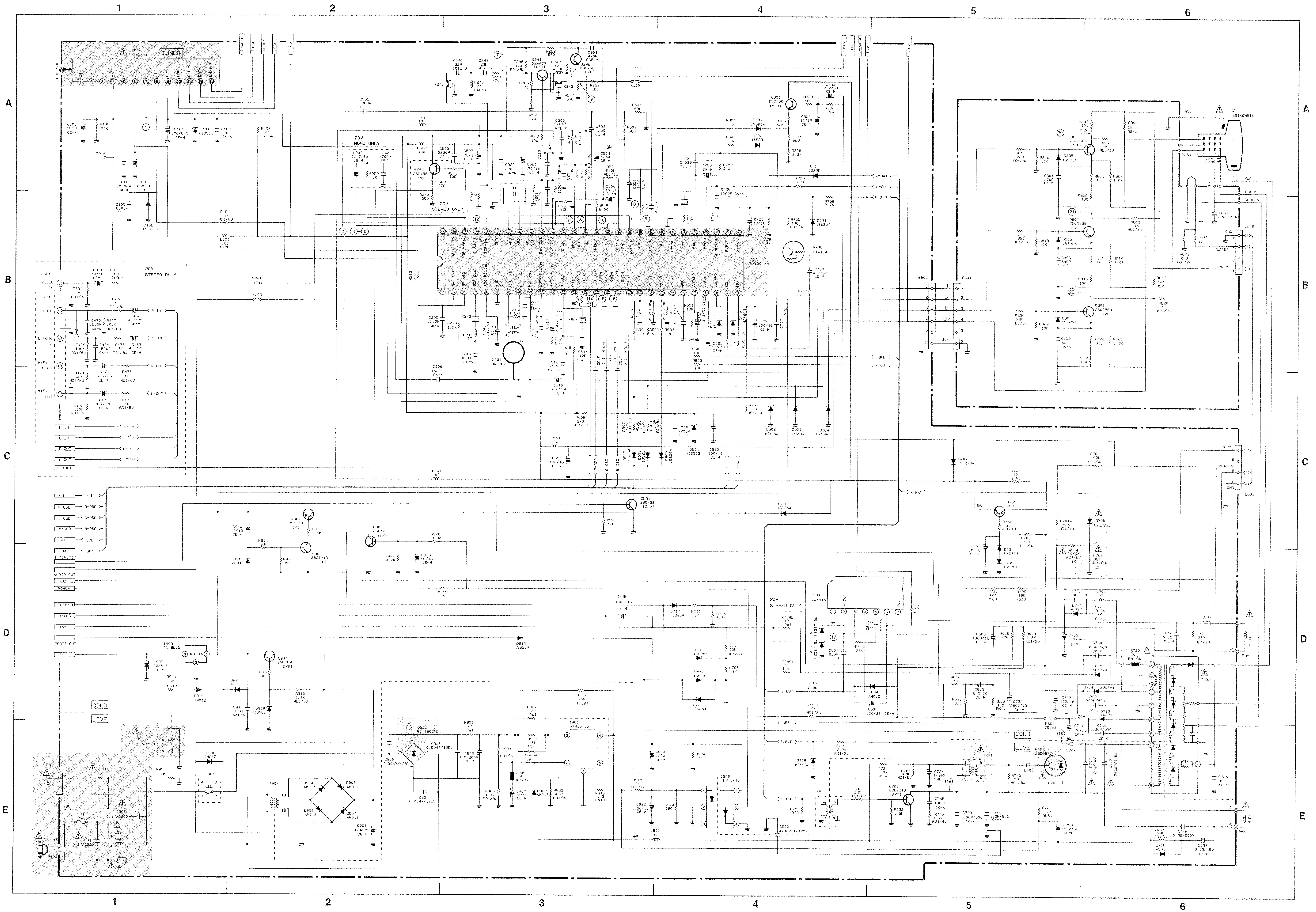
| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **QA01** | B | 0 |
| | C | 5.2 |
| | E | 0 |
| **QA02** | B | 0.6 |
| | C | 0.6 |
| | E | 0 |
| **QA03** | B | 2.1 |
| | C | 0 |
| | E | 2.7 |
| **QA04** | B | 0 |
| | C | 0.1 |
| | E | 0 |
| **QA05** | B | 3.2 |
| | C | 5 |
| | E | 2.5 |
| **QA06** | B | 4.5 |
| | C | 9.3 |
| | E | 3.8 |
| **QA07** | B | 8 |
| | C | 2.5 |
| | E | 8.6 |
| **QA08** | B | 1.9 |
| | C | 9.3 |
| | E | 1.2 |
| **QA09** | B | 7.2 |
| | C | 9.3 |
| | E | 6.5 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **QA10** | B | 0.7 |
| | C | 0.4 |
| | E | 0 |
| **QA11** | B | 0.7 |
| | C | 0.7 |
| | E | 0 |
| **QA12** | B | 1.9 |
| | C | 8.7 |
| | E | 1.3 |
| **QA13** | B | 8.7 |
| | C | 2.3 |
| | E | 9.3 |
| **QA14** | B | 0 |
| | C | 9.2 |
| | E | 0 |
| **QA15** | B | 1.9 |
| | C | 8 |
| | E | 1.2 |
| **QA17** | B | 0.3 |
| | C | 0 |
| | E | 0 |
| **QA19** | B | 0.2 |
| | C | 3.9 |
| | E | 0 |
| **QA20** | B | 0.8 |
| | C | 0.1 |
| | E | 0 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| **QAZ1** | B | 4 |
| | C | 9.3 |
| | E | 4.6 |
| **QC01** | B | 0.7 |
| | C | 7.2 |
| | E | 1.4 |

# CIRCUIT SCHEMATIC DIAGRAM OF 20SA3B/C053

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
4
5
6
A
B
C
D
E
U101 ET-452A
TUNER
20V MONO ONLY
20V STEREO ONLY
I201 TA1201AN
V1 A51KQN61X
FOCUS
SCREEN
HEATER
I601 AN5515
I901 STR30135
I902 TLP-541G
I903 AN78L05
COLD
LIVE
E801
E802
E851
X-RAY
H-OUT
F.B.P.
NFB
V-OUT
BLK
R-OSD
G-OSD
B-OSD
SCL
SDA
R-IN
L-IN
R-OUT
L-OUT
C-AUDIO
INTENCITY
AUDIO-OUT
11V
POWER
PROTE-IN
A-GND
15V
PROTE-OUT
5V
VIDEO IN
L/MONO IN
HiFi R OUT
HiFi L OUT
F901 2.5A/250
H901
+B
T701
T702
V-DY
H-DY

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I001 | 1 | 4.9 |
| | 2 | 4.9 |
| | 3 | 5.1 |
| | 4 | 0.9 |
| | 5 | 0.9 |
| | 6 | 0.9 |
| | 7 | 5.2 |
| | 8 | 5.1 |
| | 9 | 0 |
| | 10 | 2.5 |
| | 11 | 2.7 |
| | 12 | 5.3 |
| | 13 | 3.2 |
| | 14 | 5.3 |
| | 15 | 0.4 |
| | 16 | 0.2 |
| | 17 | 5.3 |
| | 18 | 2.5 |
| | 19 | 2.5 |
| | 20 | 2.6 |
| | 21 | 5.3 |
| | 22 | 0 |
| | 23 | 2.9 |
| | 24 | 5 |
| | 25 | 4.3 |
| | 26 | 0 |
| | 27 | 0.1 |
| | 28 | 0.1 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I001 | 29 | 0.1 |
| | 30 | 0.3 |
| | 31 | 0.1 |
| | 32 | 1.6 |
| | 33 | 5.4 |
| | 34 | 5.5 |
| | 35 | 0.2 |
| | 36 | 0 |
| | 37 | 0.1 |
| | 38 | 0.1 |
| | 39 | 0.1 |
| | 40 | 0.1 |
| | 41 | 0 |
| | 42 | 5.3 |
| | 43 | 5.2 |
| | 44 | 5.2 |
| | 45 | 5.2 |
| | 46 | 5.2 |
| | 47 | 0.1 |
| | 48 | 0.1 |
| | 49 | 0 |
| | 50 | 0.3 |
| | 51 | 5.1 |
| | 52 | 5.1 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I002 | 1 | 0 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 5 |
| | 6 | 5 |
| | 7 | 0 |
| | 8 | 5.3 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I003 | 1 | 5.3 |
| | 2 | 0 |
| | 3 | 5.3 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| I201 | 1 | 4.1 |
| | 2 | 4.1 |
| | 3 | 3.3 |
| | 4 | 3.3 |
| | 5 | 4.5 |
| | 6 | 0 |
| | 7 | 2.1 |
| | 8 | 2.1 |
| | 9 | 9.3 |
| | 10 | 4.6 |
| | 11 | 6 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I201 | 12 | 5 |
| | 13 | 0 |
| | 14 | 0.9 |
| | 15 | 4.9 |
| | 16 | 4.8 |
| | 17 | 4.8 |
| | 18 | 3.8 |
| | 19 | 2.4 |
| | 20 | 2.5 |
| | 21 | 2.7 |
| | 22 | 0.8 |
| | 23 | 4.6 |
| | 24 | 4.6 |
| | 25 | 5.7 |
| | 26 | 8.2 |
| | 27 | 5 |
| | 28 | 5 |
| | 29 | 0.7 |
| | 30 | 1.6 |
| | 31 | 0.1 |
| | 32 | 1 |
| | 33 | 6.8 |
| | 34 | 5.3 |
| | 35 | 0 |
| | 36 | 3.2 |
| | 37 | 3.3 |
| | 38 | 4.1 |
| | 39 | 1.6 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I201 | 40 | 5.3 |
| | 41 | 2.9 |
| | 42 | 4.8 |
| | 43 | 4.7 |
| | 44 | 3.3 |
| | 45 | 2.7 |
| | 46 | 9.2 |
| | 47 | 4 |
| | 48 | 9.3 |
| | 49 | 8.2 |
| | 50 | 8.2 |
| | 51 | 0 |
| | 52 | 0 |
| | 53 | 2.9 |
| | 54 | 4 |
| | 55 | 2.9 |
| | 56 | 2.9 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I401 | 1 | 1.3 |
| | 2 | 0 |
| | 3 | 16.9 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 1.3 |
| | 7 | 8.9 |
| | 8 | 16 |
| | 9 | 0 |
| | 10 | 17.2 |
| | 11 | 0 |
| | 12 | 8.9 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I402 | 1 | 9.1 |
| | 2 | 4.6 |
| | 3 | 4.6 |
| | 4 | 4.6 |
| | 5 | 4.6 |
| | 6 | 4.6 |
| | 7 | 4.6 |
| | 8 | 4.4 |
| | 9 | 5.7 |
| | 10 | 0.1 |
| | 11 | 3.3 |
| | 12 | 4.6 |
| | 13 | 4.6 |
| | 14 | 0 |
| | 15 | 5 |
| | 16 | 5 |
| | 17 | 0 |
| | 18 | 4.6 |
| | 19 | 4.6 |
| | 20 | 4.7 |
| | 21 | 1.3 |
| | 22 | 5.2 |
| | 23 | 5.2 |
| | 24 | 4.6 |
| | 25 | 4.6 |
| | 26 | 4.6 |
| | 27 | 4.6 |
| | 28 | 4.9 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I404 | 1 | 0 |
| | 2 | 0 |
| | 3 | 4.6 |
| | 4 | 0.1 |
| | 5 | 4.7 |
| | 6 | 4.7 |
| | 7 | 0.1 |
| | 8 | 0.1 |
| | 9 | 4.6 |
| | 10 | 0.1 |
| | 11 | 2.6 |
| | 12 | 2.6 |
| | 13 | 0.1 |
| | 14 | 4.1 |
| | 15 | 2.5 |
| | 16 | 0.1 |
| | 17 | 4.7 |
| | 18 | 4.7 |
| | 19 | 0.1 |
| | 20 | 4.6 |
| | 21 | 9.1 |
| | 22 | 4.6 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I601 | 1 | 0 |
| | 2 | 12.5 |
| | 3 | 26.8 |
| | 4 | 0.8 |
| | 5 | 0 |
| | 6 | 2.1 |
| | 7 | 25.9 |

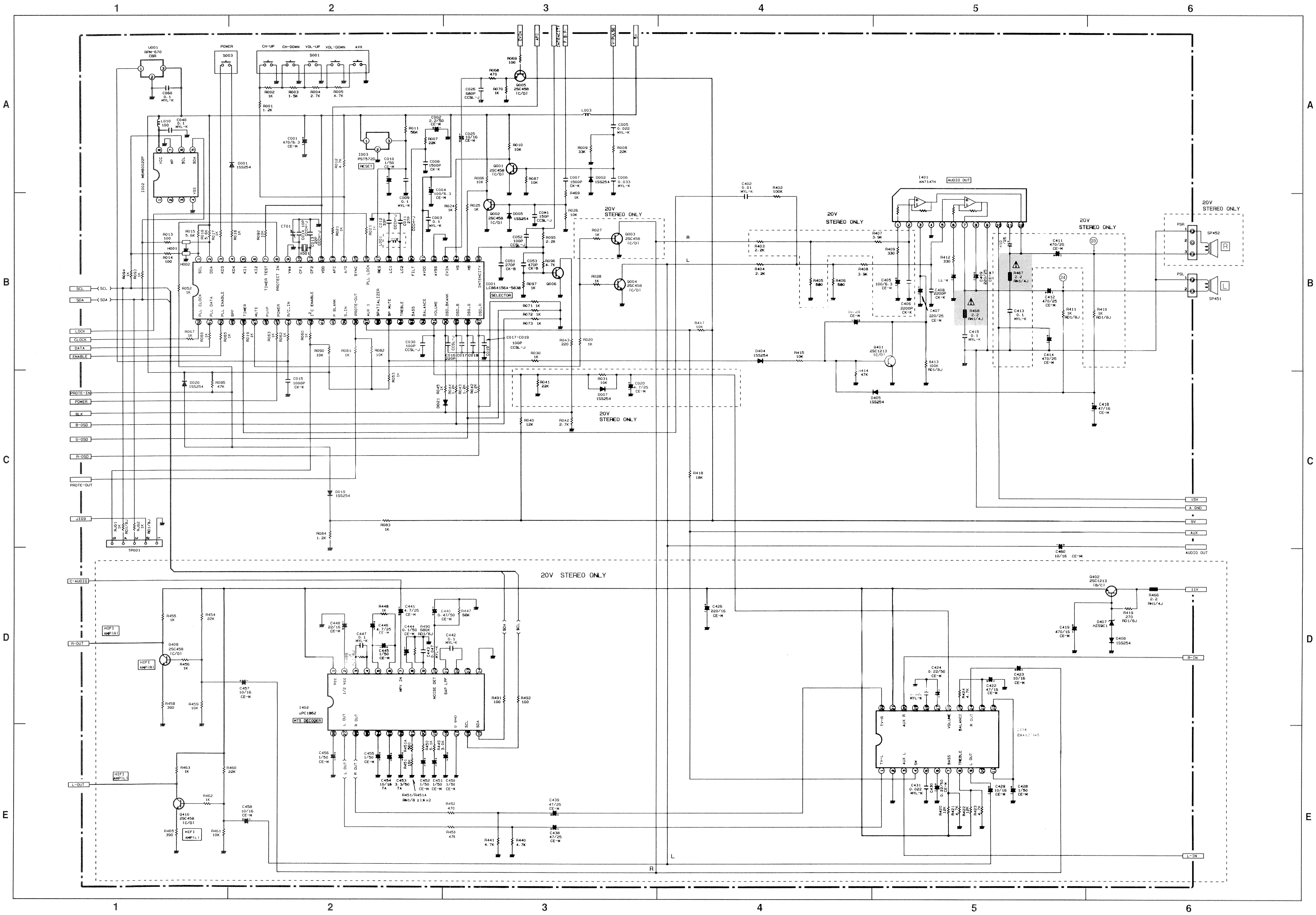
| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I901 | 1 | 0 |
| | 2 | 136.1 |
| | 3 | 160.9 |
| | 4 | 135.1 |
| | 5 | 0 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I902 | 1 | 17.3 |
| | 2 | 16.7 |
| | 3 | 0 |
| | 4 | -14.7 |
| | 5 | 82 |
| | 6 | -14.7 |

| Circuit No | Pin No. | DC Voltage Vdc |
|---|---|---|
| I903 | 1 | 8.7 |
| | 2 | 0 |
| | 3 | 5 |

# CIRCUIT SCHEMATIC DIAGRAM OF 20SA3B/C053

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
4
5
6
A
B
C
D
E
U001 RPM-670 CBR
POWER S003
CH-UP CH-DOWN VOL-UP VOL-DOWN AVX S001
I002
I003 PST572D RESET
I001 SELECTOR
I401 AN7147N AUDIO OUT
20V STEREO ONLY
I402 uPC1862 MTS DECODER
SP452
SP451
PSR
PSL
SCL
SDA
LOCK
CLOCK
DATA
ENABLE
PROTE-IN
POWER
BLK
B-OSD
G-OSD
R-OSD
PROTE-OUT
TP001
C-AUDIO
R-OUT
L-OUT
HIFI AMP(R)
HIFI AMP(L)
15V
A GND
5V
AUX
AUDIO OUT
11V
R-IN
L-IN
R
L

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| Q001 | B | 0 |
| | C | 5 |
| | E | 0 |
| Q002 | B | 0 |
| | C | 4.4 |
| | E | 0 |
| Q003 | B | 0 |
| | C | 0 |
| | E | 0 |
| Q004 | B | 0 |
| | C | 0 |
| | E | 0 |
| Q005 | B | 2.9 |
| | C | 9.2 |
| | E | 2.2 |
| Q006 | B | 0 |
| | C | 0.9 |
| | E | 0 |
| Q240 | B | 3.9 |
| | C | 9.2 |
| | E | 3.2 |
| Q241 | B | 4 |
| | C | 0 |
| | E | 4.6 |
| Q242 | B | 2.4 |
| | C | 9.2 |
| | E | 1.7 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| Q301 | B | 9.8 |
| | C | 9.2 |
| | E | 9.2 |
| Q401 | B | 0 |
| | C | 16.9 |
| | E | 0 |
| Q402 | B | 9.8 |
| | C | 11.1 |
| | E | 9.1 |
| Q408 | B | 2.8 |
| | C | 8.4 |
| | E | 2.2 |
| Q410 | B | 2.8 |
| | C | 8.4 |
| | E | 2.2 |
| Q591 | B | 0 |
| | C | 2.9 |
| | E | 0 |
| Q701 | B | 0.4 |
| | C | 15.9 |
| | E | 0 |
| Q702 | B | 2 |
| | C | 134.1 |
| | E | 2.1 |
| Q705 | B | 9.9 |
| | C | 11.3 |
| | E | 0 |

| Circuit No. | Pin No. | DC Voltage Vdc |
|---|---|---|
| Q706 | B | 17.2 |
| | C | 1 |
| | E | 17.2 |
| Q801 | B | 3 |
| | C | 154.5 |
| | E | 2.6 |
| Q802 | B | 3.2 |
| | C | 148.6 |
| | E | 2.7 |
| Q803 | B | 3.2 |
| | C | 144.3 |
| | E | 2.8 |
| Q904 | B | 9.3 |
| | C | 18.4 |
| | E | 8.7 |
| Q906 | B | 0.8 |
| | C | 0.2 |
| | E | 0 |
| Q907 | B | 8.2 |
| | C | 8.6 |
| | E | 8.7 |
| Q908 | B | 0.2 |
| | C | 8.2 |
| | E | 0.2 |

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